American MILK REVIEW

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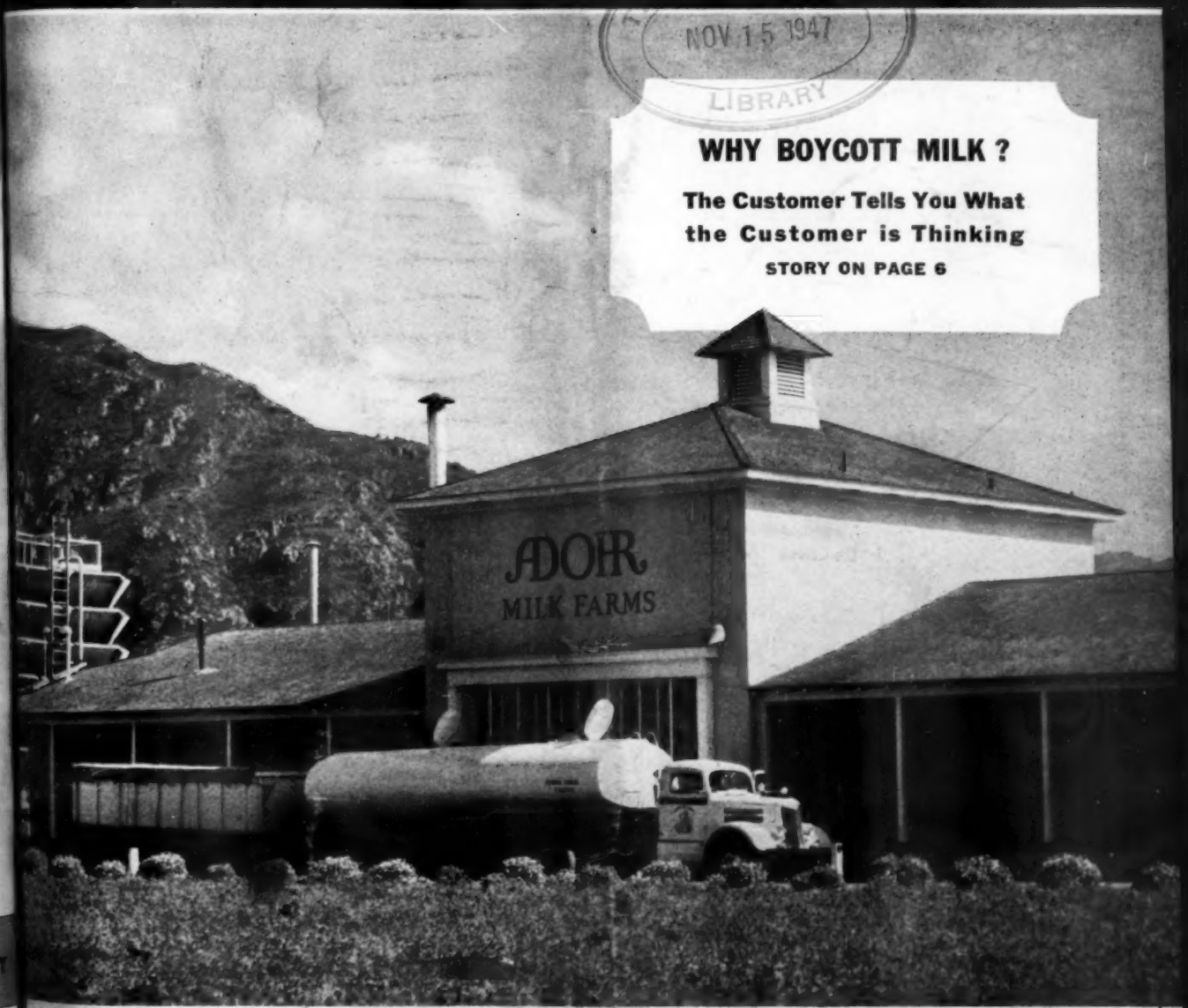
WHY BOYCOTT MILK ?

The Customer Tells You What the Customer is Thinking

STORY ON PAGE 6



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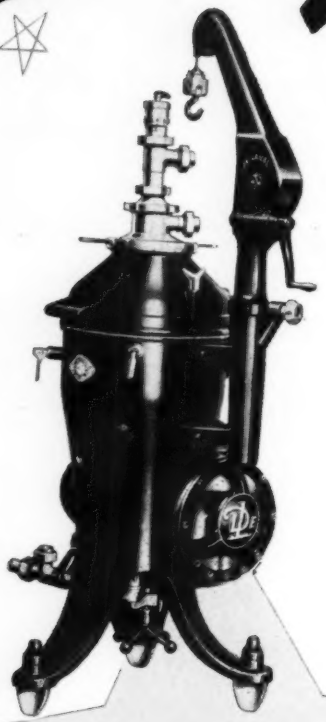

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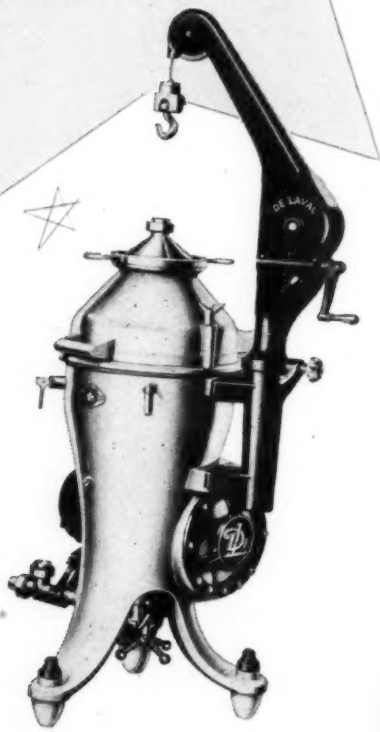

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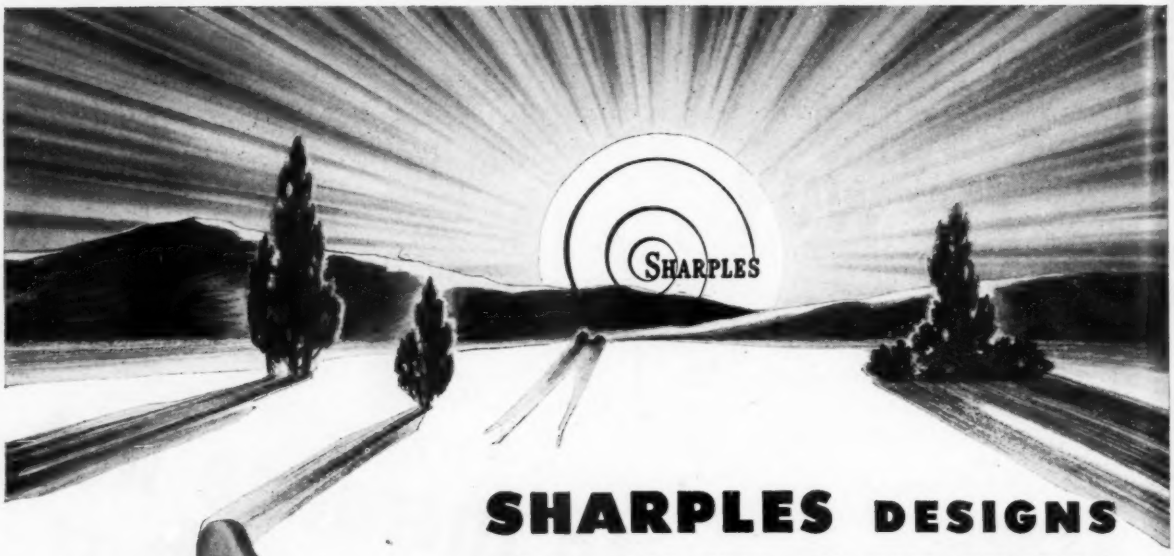

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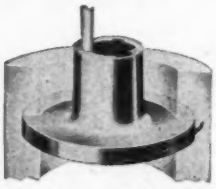
The Liquid Seal  *cuts gasket replacement costs up to* 95%

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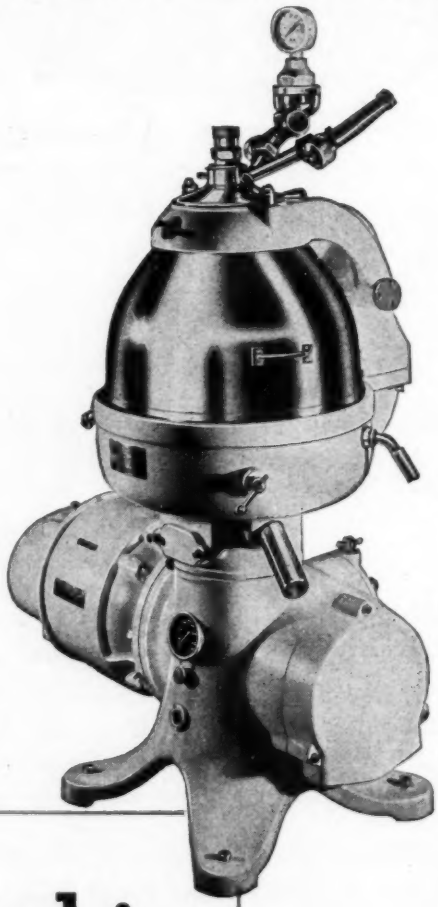

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NORMAN MYRICK ..... Editor
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S. K. URNER ..... Associate Editor

Advertising Manager, George Q. Burkett

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Mid-Western Representative
GUY W. WHITCOMB
520 N. Michigan Ave.
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WHY BOYCOTT MILK?

By GLORIA J. BARTLETT
President, American Housewives Organized, Inc.

On October 5, 1947, an organization known as American Housewives Organized, Inc., representing some 10,000 New Jersey women, instituted a boycott against milk in their home State. The organization and the action were the outgrowth of high prices. The American Milk Review has repeatedly urged the dairy industry to take positive measures to acquaint the public with the nature of the fluid milk price structure. We print below, neither in justification nor in condemnation, an article by the founder and president of American Housewives Organized, Inc. Mrs. Bartlett demonstrates, much more eloquently than anything that we could say, the vital place that fluid milk occupies in the national diet and the crying need for better public information on the economics of milk prices.

BERGEN EVENING RECORD PHOTO.

MRS. WILLIAM C. BARTLETT, President *Housewives are . . .*

BEFORE STEPPING RASHLY, but none the less firmly, from the frying pan into the fire, I should like to ask the editors of the American Milk Review and its many thousands of readers to hear me through because of two things: 1st, because I am a housewife and as such contribute daily to the success of diversified industry throughout the country; 2nd, because what here follows is said sincerely, honestly and with no intention of being malicious or hostile, and with no emphasis on personalities.

I realize that the members of the milk industry have problems which have not lessened with the advent of peace. In fact, those problems have probably become even more complex in a post war inflationary period. But, I wonder if those same members realize that the housewives' problems have increased even more alarmingly. It rests directly with us to see that (despite the diminishing purchasing power of the shrinking dollar) our families are supplied with enough of the essential foods to insure healthy minds in fine healthy bodies; for the well-being of the entire nation depends entirely on the well-being of all its people in every walk of life.

Organization A Year Old

The organization known as The American Housewives Organized, Inc., which I helped to found just about a year ago and over which I have been given the honor to preside, came into being as a result of the many indignities to which we housewives had been subjected during the war years and after, black market, under the counter trade, food lines, shortages, sky-rocketing prices, etc. Since we are the largest single group of working people in America, and as such represent approximately 80 per cent of the purchasing power, we felt that it was about time for us to pool our resources and attempt to do something about those conditions which directly affected us, our homes and families, and our American way of life. Hence our organization, which is chartered under the laws of the State of New Jersey; and our Certificate of Incorporation modifies us as being non-political, non-profiting, and non-communistic.

Our first organized efforts were directed against inflation, high prices and the innumerable ensuing evils. All high priced foodstuffs came in for their share of investigation and our research committee has done a magnificent job on the wealth of facts and figures it has unearthed. Foremost in our war on food prices is our milk price resistance campaign. We bent our efforts toward bringing down the price of milk for several reasons—1st, because we admit that milk is the most essential food and cannot be successfully substituted; 2nd, because we feel that no child or adult should be deprived of it either in whole or in part; and 3rd, because the price of milk in New Jersey is controlled by a milk control board which offered a natural starting place for our endeavors.

Situation Irksome

There are many things about the milk situation in New Jersey which sorely irks Mrs. New Jersey Housewife. I have obtained these facts from correspondence and personal conversation representing some 21,000 persons in the state. First of all the milk control act was passed as an emergency measure in 1933 and the state of emergency has never been declared at an end. Further, the women in the state feel that during this critical period governmental agencies should concern themselves with lowering prices rather than continually contributing to the increased cost of living; that this board (which should be an instrument of the people) should protect the interests of all the people of the state rather than special interests. Milk production costs in New Jersey are admittedly higher than in neighboring states, still the board is adamant in pushing the sale of New Jersey produced milk in preference to that produced elsewhere. We feel that if good wholesome milk can be purchased at lower cost in other territories its consumption should be encouraged here.

We have heard the testimony of all groups in the industry and each group persists in blaming the other for increased costs. This tendency is particularly evident when one group is discussing the situation in the absence of the others. Producers, processors, distributors, each place the blame on his brother's doorstep but all groups claim that milk in New Jersey has risen only slightly in cost. However, just previous to the war regular milk was selling in this area for fourteen cents a quart. Today it is twenty-two and one-half cents which amounts to more than 60 per cent increase. Along with this we are still tolerating the every-other-day delivery which in terms of savings to the milk companies really amounts to another increase to the consumer.

Questions Every-Other-Day Delivery

Incidentally, this every-other-day delivery which was thrust upon us as a war measure is also a source of grievance.

This is particularly true in the warm weather when refrigeration is always a problem. We have made a survey among leading physicians in this section of the state and they are all in accord that they would welcome the return of daily delivery as a health measure. They all agree that while the food value of two-day old milk remains unchanged, the bacteria count (and that, as we all know, is the bogey man) rises in the absence of perfect refrigeration. Despite the fact that many of us today have mechanical refrigeration it does not necessarily follow that that refrigeration is perfect. Over-crowding, opening of the door, old and imperfect equipment all contribute to imperfection. The housewife claims that in order to put her entire two-day supply of milk in the refrigerator it is often necessary to remove some other food stuff and run the risk of spoilage. But, the distributor claims that if he resumes daily delivery it will mean another two cent increase on the quart. We have even had one representative of one of the largest companies admit that his company never intends to return to daily delivery!

Then along comes labor with a brand new contract. The milk companies openly acknowledge the fact that if the contract should be accepted as it now stands it will mean an immediate five cent increase per quart. Of course we realize that the contract as it stands is by no means the one which will finally be accepted but no matter what is accepted the housewife will probably have to pay for it!

And then we come to the producer! Ah, the producer! Not one of the large producers (according to producers) is making any money! And there comes the rub! Those of us who have kept abreast of the situation know that no other share of the national income has showed so large a gain as the farmers. Yes, their costs have risen along with everyone else but not in comparison to their incomes which have soared way out of proportion to that of other groups. According to an article in the Journal of Commerce, Sept. 9, 1947 "the prices farmers receive are now at unprecedented peak levels while prices farmers pay for products they must buy have increased less."

BERGEN EVENING RECORD PHOTO.

MRS. FRANK HOWLAND, Secretary

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The Largest Single Group . . .

Sympathy For Farmer Waning

For a long while the sympathies of the people and the government of the United States were aligned with the farmer. We were happy to see him prosper and to help rectify the many wrongs under which he had been laboring. But public opinion in a democracy is a funny thing. It can go all out in one direction to win its point, but can swing just as strongly to the opposite direction when justly aroused. Little by little the public is starting to resent the continued amassment of wealth by the farm group as the wage earners feel more and more the strain of "making both ends meet".

An A. P. release of Oct. 1, 1947, declares that the Investors Syndicate in its monthly survey of purchasing power said "that the 'real income' of wage and salary earners continued to drop in September while farmers' incomes continued to rise."

"The continued divergence between farm and city buying power indicates that a serious unbalance may threaten the stability of our economy."

At a recent meeting with a group of New Jersey milk producers, I heard the gentlemen present admit that they must be guaranteed money in the bank after their expenses were paid or they would refuse to operate. This leads me to believe that their own bank books are more important than the well-being of the nation! Overlooking the fact that their land value has increased about twenty-five billion dollars, there still remains the fact that their financial assets consisting principally of bank deposits, currency and government bonds amounts to twenty-two billion dollars which is more than four times that of 1940. In addition to this they have their live stock, crops and equipment, and Mr. and Mrs. Public continues dropping the biggest part of their individual earnings into the farmers' already bulging coffers. Is it any wonder that the murmurs of dissatisfaction are growing into heated discussions?

In our efforts to fight the continued rise in the price of milk, we have contacted the directors of some of the largest

(Please Turn to Page 56)

EDITORIALLY SPEAKING . . .

Action in New Jersey

AS THE WALRUS said "the time has come to speak of many things." For some months the *Review* has been urging the fluid milk industry to take the public into its confidence with regard to price. In the June issue of this year we printed an editorial entitled "Opportunity and the Milk Wagon". In July we presented A. A. Brown's thoughtful article on "The Place for Leadership". In September we carried an editorial labeled "Tell the Public Why". In October another editorial, "What Fools These Mortals Be", wrestled with the problem anew. Each of these pieces attempted to point out that the customer, those people for whose benefits our industry exists, are the ultimate arbiters of fluid milk prices.

This month we have opened the pages of the *American Milk Review* to these judges. We have done so not because we believe prices to be out of line, not because we espouse the cause of American Housewives Organized, but because we believe that the industry should know what the public is thinking. What Mrs. Bartlett's article "Why Boycott Milk?" demonstrates beyond all contradiction is the importance with which milk is regarded by American housewives and the deep resentment that smoulders in the face of constantly increasing prices. The course that this resentment will take is the most important problem facing the industry today. Make no mistake about it, the public will act. If supplied with correct information the chances are that it will act logically. But if the information is not correct the public will still act, and in a manner that might well mean disaster for the industry.

Most of the misfortunes in this world have their origins in misunderstanding. The greater part of misunderstanding is either inaccurate or inadequate information. The dairy industry has prided itself on the essential nature of dairy products. We have told the public again and again of the nutritive character of milk and given it the deserved title of "Nature's most perfect food". At the present moment Railway Express trucks, 5000 of them, are carrying the message "Milk, Everybody's Drink" across the nation. We have made milk a *necessary* part of the national diet. From the point of view of nutrition we have done a remarkable job, from the equally important point of view of economics we have failed miserably.

Last month a group of New Jersey housewives, 10,000 strong, did a paradoxical thing; they stopped buying milk because they needed milk. Whether their action was wise, whether it will accomplish its purpose, or whether it was justified is immaterial. The important point is that these ladies, charged with one of the most serious responsibilities in human existance, took action that an honest well planned public relations program would have made unnecessary.

American Housewives Organized came into existence a little over a year ago. It was a spontaneous development stemming from housewifely dismay over the inflationary price spiral. It is made up of quite ordinary middle class American women. In the space of months the group expanded from seven ladies to more than 19,000, with groups in 42 of the 48 States. Thousands upon thousands of applications for membership, of inquiries concerning methods, concerning aims, concerning achievements poured into the ordinary homes of the ordinary women who put the original thought into action.

The problem is clear. One of the essential foods has been priced to a point which the consumer feels is close to or beyond her ability to pay. Because she has been taught and come to believe in the necessity of this food she is not willing simply to cease buying, she believes that she must have the milk in order to live. She has, therefore, adopted tactics that are not in the book. Reduced to fundamentals the consumer is fighting for something that is necessary in order to live. That is a powerful incentive and one that should not be under-estimated. Strangely enough in order to live people are willing to die.

There are several courses open to the dairy industry. We can write the whole thing off as a screwy demonstration by a bunch of women who ought to be home taking care of the kids. We can try to break up the threat by calling it "communist" or by taking retaliatory action such as withholding milk from organized groups of consumers when milk is short. We can sit back in an attitude of "watchful waiting" hoping that in this best of all possible worlds things will work out for the best. And finally we can bend our efforts and our vast resources to presenting our side of the story.

The *American Milk Review* believes in the last alternative. We believe that people, for the most part, are reasonable creatures and that given adequate and accurate information will make logical deductions. We believe that fluid milk prices at the present time are a fair and reasonable value. But we also believe that the public does not know that milk carries a fair and reasonable price. The public does not know and it will not know unless the industry takes the trouble to so demonstrate because we doubt very much that anybody else will.

●

Miami Journey

IT IS THE prerogative of editors to point with pride and view with alarm. This month our pride pointing finger is leveled without question at the superb dairy week just completed at Miami Beach.

We had the privilege of being one of the fifteen thousand dairymen gathered from the corners of the world who attended the week-long convention. We have yet to decide whence came our most vivid impression. There was the fabulous beach and the blue water. There were the personalities and the meetings. There were the gala banquets and the good-fellowship. But in retrospect those items were the window dressing. Beneath the plane of convention excitement there was apparent a solid foundation. Perhaps it was the visible representation of the industry. Perhaps it was the realization that gathered at Miami were some of the best brains, the most energetic personalities that the industry possesses. Whatever the reason, the fact is that we came away from those conventions with a new concept of size and a new sense of obligation. We learned all over again how close our industry comes to the life blood of society.

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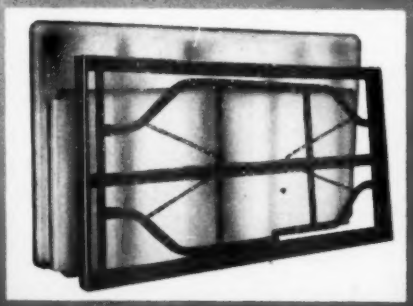

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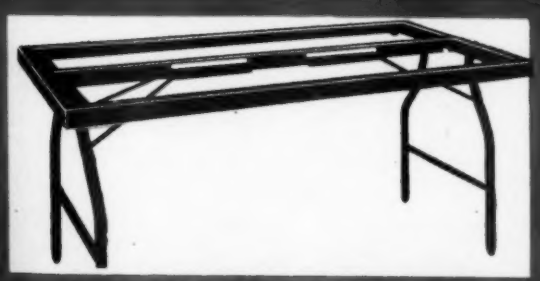
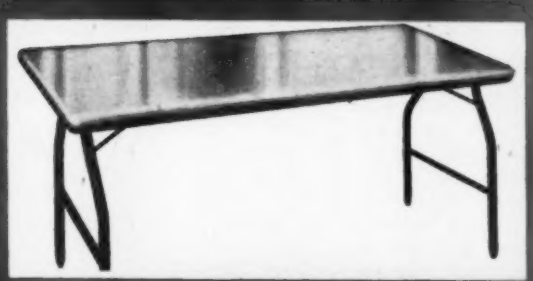


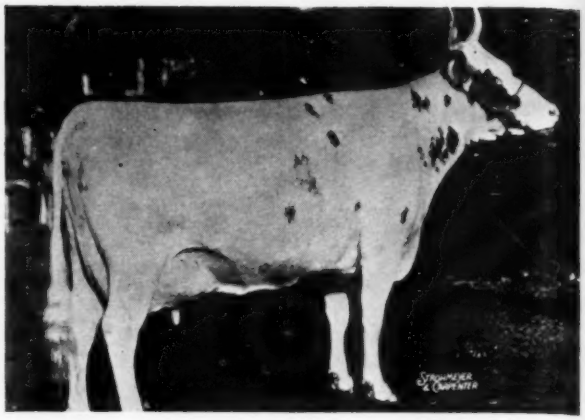
Heavy, Rigid, Steel Frame Unfolds in a Jiffy



STRATHGLASS LUCKY PUFF, Boogie of Eastside, Ardgowan Valda, Imp, are names that suggest the moor and the heather of Scotland. Actually they are the names of three Ayrshire cows and if the suggestion of the highland country is present it is because it is impossible to separate the breed from the land of its origin.

Ayrshires, noted for the fine flavor and soft curd of their milk, had their beginnings among the Scottish dairy farmers of the County Ayr. The breed evolved from native stock selected on the basis of productiveness, that was combined with some of the so-called "breeds" of the 17th and 18th century. By the 19th century the characteristics of Ayrshires preserved by 1870 Scottish breeders had begun a system of registering their cattle.

Small numbers of Ayrshires were brought into the United States as early as 1837 but it was not until 1860 that they were imported in any great quantity. In 1943 there were 120,000 purebred Ayrshires in the United States while nearly 400,000 animals of the breed have been recorded in this country. The Ayrshire Breeders' Association with headquarters in Brandon, Vt., boasts of a membership of 5,500.



Alfalfa Farm Ann Second undefeated Grand Champion of the Ayrshire breed owned by Robert L. Knight of Hope, Rhode Island.

. . . AYRSHIRES . . .

FOR A NUMBER of years the breed was particularly popular in the North Atlantic States. Within recent years, however, Ayrshires have made rapid gains in other areas. A great many other regions have also become interested.

One never knows quite where to begin or quite where to end when writing about breeds of cattle. There is much of the "love me love my dog" spirit where livestock fanciers are concerned and scarcely a cattle man in the nation but carries his breed on his sleeve. And, in truth, when one considers the records of the dairy cattle breeds what is there to chose? This breed is famed for its quantity production, this breed for its butterfat content, that breed for its all around ruggedness and efficiency. There is room for praise and for criticism among all breeds.

Ayrshires with their clean limbs and their long horns are good in every department. While they do not produce as much milk as their Holstein cousins they have a higher butterfat content. And although Guernseys and Jerseys yield a higher percentage of butterfat their total production is not the equal of the Ayrshire. Salvage value in these cattle of the Scottish Highlands is excellent. Ayrshire cows and steers finish off well for beef and have brought good prices on the livestock markets. Yet when the score cards are added up and all the comparisons are made the final factor in the decision of the breeder to select Ayrshires or their cousins is based on an emotion. The Ayrshire breeder likes Ayrshires and that is the end of that.

Under the guidance of the Ayrshire Breeders' Association the brown and white cattle have become established as one of the five major dairy breeds in the United States. Sec-treas. of the Association and charged with the task of administering the organizational machinery is genial C. T. Conklin.

Like other similar associations the Ayrshire organization is a non-profit enterprise that collects nominal fees for registering and transferring purebred cattle of its particular breed. In addition to these services the production records of all Ayrshires on Herd Test or under Advanced Registry supervi-

(Please Turn to Page 53)

A million pounds of milk on the hoof. These nine cows that were assembled and exhibited by the Ayrshire Breeders Association established a record that is a credit to any breed.

Save Trucks with T-Squares

WHAT DO YOU MEAN- "MILK BOTTLES SAVE TRUCKS"?
JUST THAT... T-SQUARE BOTTLES WILL SAVE YOU TWO TRUCKS FOR EVERY FIVE NOW IN SERVICE

YOU'LL HAVE TO SHOW ME
YOU SEE, THATCHER T-SQUARE MILK BOTTLES ARE SO COMPACT THEY ADD UP TO 63% TO YOUR PRESENT TRUCK CAPACITY... THE ADDED LOADS POSSIBLE ARE EQUIVALENT TO 2 NEW TRUCKS FOR EVERY FIVE YOU NOW HAVE

WOW! NEW TRUCKS THAT COST NOTHING, AND RUN NO EXPENSE FOR TIRES, GAS OR MAINTENANCE
FIGURE IT OUT FOR YOURSELF- YOU CAN GET 84 T-SQUARE QUART CASES IN DELIVERY TRUCKS THAT HOLD ONLY 56 OF THE STANDARD QUART CASES

MAN- I BELIEVE YOU HAVE SOMETHING
SURE THING; WITH T-SQUARES YOU CAN INCREASE PAY-LOAD VOLUME OF MILK HAULED AND CUT DOWN ON THE NUMBER OF TRIPS NECESSARY

"I'm convinced now and you will be, too! Once you actually see the amazing advantages of Thatcher T-Squares, you won't be able to wait until you have them for your dairy. Call the Thatcher Representative in your area now — don't delay any longer in ordering your T-Square milk bottles."

THATCHER GLASS

MANUFACTURING COMPANY, INC.
ELMIRA, NEW YORK

SEPARATORS *and* CLARIFIERS

Mechanical Failures in These Vital Pieces of Equipment Can Be Materially Reduced by Proper Maintenance Practices as Set Forth in the Instruction Manuals

By a Review Staff Member

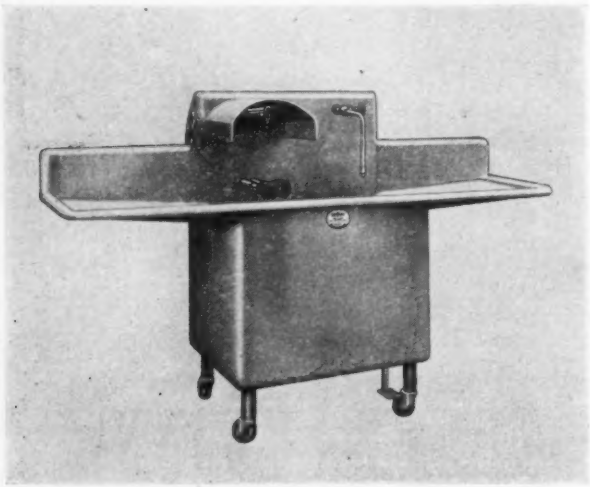
EIGHTY PER CENT of mechanical failures in separators and clarifiers are due to improper handling of the equipment was the amazing answer given to a *Review* staff member by an official of a leading manufacturing concern.

Curious regarding the reasons for separator and clarifier troubles that plague milk plant operators the *Review* undertook to find the answer. The secret is eloquently told in that single statement which ads up, once again, to the human factor.

During the war years when experienced help was hard to get high priced equipment took an unnecessarily rough beating. High school boys filling in before selective service took them, untrained in the highly specialized nature of the equipment they were assigned and not particularly concerned with the future of the job, were largly responsible according to equipment manufacturers for the hard usage accorded the machines. But it would be ignoring one of the major truths of the industry to say that all is right with equipment handling practices now that the war is over and more mature help is back on the job. A casual visit to the majority of the milk plants throughout the country would reveal a multitude of poor practices that are contributing their share of misuse to dairy plant equipment and adding a subtle, though none the less real, charge to the cost of the "most nearly perfect food."

Most Flagrant Offense

The single most flagrant offense in this business of caring for equipment, particularly separators and clarifiers, is the cleaning operation. The fact that requirements necessitate tearing down and reassembling a finely machined instrument every time it is used is in itself an invitation to trouble.



The sanitary fittings cleaner is a compact, movable unit that enables workmen to do a better cleaning job in less time than with old equipment. Power driven brushes extending over the sink compartment are fed cleaning solution from perforated pipe located under protecting hood. Rinsing pipe and control pedal are on the left.

A breakdown of separator and clarifier cleaning shows four principal lacks that are the root of most of the operational difficulties with this type of equipment.

Dropping parts has a familiar note for most managers. It is not an uncommon sight to see one workman disassembling a separator or clarifier and tossing the parts to a co-worker a dozen feet away at the fittings cleaner. Slippery as fittings are inclined to be coupled with the fact that it is probably some years since the receiving workman held down the hot corner for the West Hill Bullfrogs results in one or more pieces hitting the hard surface of the floor or some other fixture in the course of the cleaning process. The damage to valves or discs or whatever happens to be dropped is a serious thing in items that are machined to tolerances measured in ten thousandths of an inch.

Many plants provide a tray or table on which the parts of the machine being cleaned may be placed. This is a good practice, better than the floor in any case, but can be vastly improved if a rubber mat or surface is provided. Of course, even here, care must be taken by the workmen in placing the pieces of the separator on the mat to see that they do not bang against each other. A sanitary fittings buggy, similar to the one developed by John Perry of Sealtest described in the September issue of the *Review*, eliminates most of the chance for mishandling.

Need Adequate Transportation Facilities

Provision for the transportation of fittings to the fitting cleaner must also be made. Too many fittings are dropped in the course of being carried from one place to another when adequate facilities for transporation are not present. Furthermore without specific equipment for moving the parts the workmen tend to reduce the number of trips required to a minimum which simply means jamming as many parts as possible into a basket or employing the tossing method. The sanitary fittings buggy used in combination with a well designed fittings cleaner appears to be the answer to this problem. The buggy affords a safe means of transportation without marring while the good fittings cleaner, with drain boards or shelves on either side, eliminates the floor as a repository for equipment.

Storage arrangements for the cleansed parts demand attention if the spearator and clarifier are to function properly. The opportunity for machine parts, scattered casually around the area, to get lost or knocked on the floor is too good for the milk plant gremlins to miss. One manufacturer recommends a simple cabinet equipped with convenient racks for storage purposes. The cabinet is not difficult to build and its influence in developing good housekeeping practices gives it a value over and above the savings that it effects in preserving delicate equipment.

Old hands in the cleaning business declare that one of the weakest points in the cleaning operation is the proper reassembly of the equipment. Despite the fact that each part

is plainly marked and all that is necessary to get items in their proper places is a little care, the mixing of parts from one machine with parts of another is a source of considerable trouble. There are, of course, many parts where interchange does not matter. Other parts of the separator or clarifier are fitted to a specific machine and cannot be shifted without inviting Old Man Trouble to step in. Manufacturers point out that in a separator for example a bowl weighing four hundred pounds revolving at 6000 revolutions per minute extremely careful machine work must be done in order that great forces generated by such terrific velocities do not wreck the equipment. Balance is essential if a sparator is to function properly. Each bowl must be balanced for the particular machine of which it is a part. If, during the course of cleaning several separators the bowls become mixed, and it happens all too often, look out for trouble. There is no reason why a mix up should happen inasmuch as each piece of equipment is identified by a serial number that tells which machine it is a part, yet the mix ups do occur.

Mixing Parts Is Common Fault

Interchange of smaller parts is an even more common fault and one that leads to many of the operational difficulties with which milk plant managers have to contend. Concurrent with mixing parts from different machines and probably a contributory cause is the practice of placing the parts to be cleaned in a heterogenous jumble on the floor or some other surface that happens to be handy without regard for the delicate nature of the equipment and with little thought concerning their reassembly.

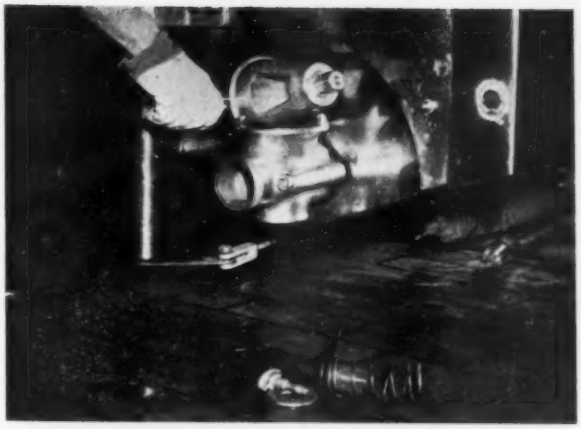
Clarifier discs have been the source of much of the bowl trouble that milk plant operators have experienced. The discs are incorporated into the clarifier according to numbered system from the bottom of the bowl to the top. Often the cleaning personnel reassemble the discs in the reverse order, placing the bottom discs at the top and the top discs at the bottom. The rapidly revolving bowl is thrown out of balance by this error and results in poor operation and control.

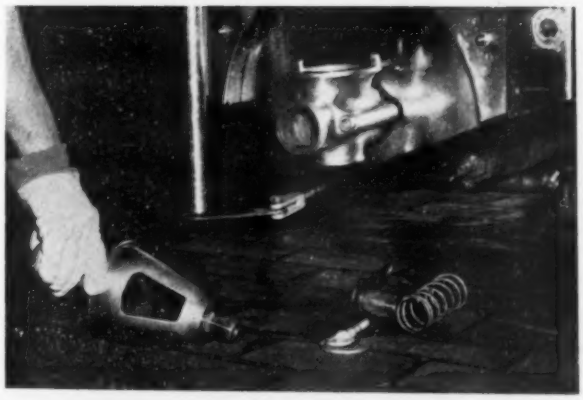
A great deal of faulty separator and clarifier operation is manifested in poor control. The improper practices described above are usually responsible for such difficulty. It is imperative that the manufacturer's chart be followed in assembling the equipment and that parts from one machine are not used on another. Poor control, however, can also result from processing milk that has not been brought to the proper temperature. The physical changes in the character of milk that take place with changes of temperature obviously suggest that its behavior in a separator or clarifier will vary with these same temperature changes. Temperatures most desirable for separating are betwen 85 and 95 dsgrees F. and give the best results.

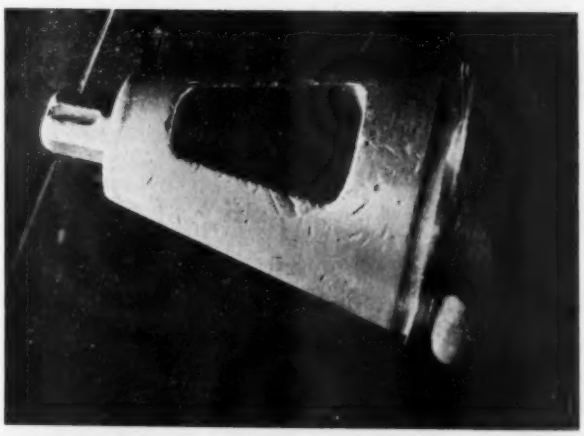
Oil is a factor writ large in the satisfactory operation of separators and clarifiers. Too little oil or improper oil can result in burned out bearings, worn worm wheels and the failure of other running parts.

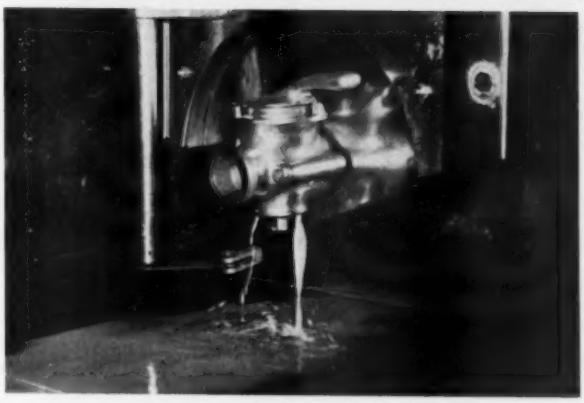
Service departments in equipment manufacturing organizations are emphatic in declaring that proper oil and oiling means conforming to the manufacturer's specifications. All too frequently the operation manual is lost and the equipment is run on a rule of thumb basis. Inevitably an operational failure occurs, the manufacturer's service force is called in, and a correction made that was specified in the operational manual in the first place.

Water in the oil chamber is a common cause of lubrication trouble. The presence of the water is generally due to con-









TEN STEPS GUARANTEED TO RUIN A GOOD VALVE
(1) Place disassembled valve on housing for efficient scratching. (2) Roll valve on tile floor to improve marking. Also distribute other parts in convenient spots for losing or stepping on. (3) Examine valve to see that it is properly scored. (4) Re-assemble and watch the profits run down the drain.

densation which, particularly in the case of clarifiers, results from running cold milk through a machine that is at room temperature. Another cause of condensation, more or less confined to northern latitudes, is the low temperature that is likely to prevail during a winter's night. In the morning when the steam is turned on and the room is brought up to a comfortable temperature the difference in temperature between the room and the clarifier results in a condensate being formed.

That equipment should be operated at a speed for which it was built would appear to be so obvious as to need no comment yet even here, service department experience has shown, is a source of trouble. Separators for example, that operate too fast produce too heavy a cream while if operated too slow the same machine will produce cream that is too light.

It is not the purpose of this article to throw up an aura "mustn't touch" around separators and clarifiers. They are built to stand hard use and properly handled will give good service. What we are trying to point out is that there is no machine, no matter how well built that is constructed to operate under misuse. A ship is as good as its paint and a piece of machinery is not much better than the care that it receives.

Follow the Manufacturer's Instructions

Our present post war era with extensive renovations and remodeling taking place in many of the nation's milk plant sets up a possible source of trouble that should be considered. There are few cases on record of faulty installation. When the manufacturer's representative completes his work the plant manager has every reason to feel confident in the correctness of the installation. However, there are certain points that the manager should check. The bowl should revolve in the proper direction. We once heard of an embryonic engineer who constructed a sewage system that was a marvel of design. The only fault that could be found with the system was that it ran the wrong way. While the results of a separator bowl revolving in the wrong direction might not be so immediately obvious the result could be equally disastrous. Power supply should likewise be checked to insure that the voltage meets with the motor plate specification.

Present remodeling activities will involve the movement of equipment or new hookups for old installations. This is a perfectly natural and reasonable practice. The only precaution is the necessity of following the manufacturer's recommendations. New piping arrangements frequently are the stumbling block in setting up a different system. Care should be taken to see that piping to and from the separator is properly fitted to prevent a strain on inlet and outlet parts. Again where two or more machines are used piping should not be mixed. One separator may have a longer outlet pipe than the pipe from the other.

Worn or improper pumps sometimes are trouble breeders. If the equipment tends to operate over or under its rated capacity the pumps are more than likely the source of trouble. Positive pumps are necessary for changing pressures on airtight or other closed type separators.

The end result of this peek into the problems of separator and clarifier operation is the conviction that, as in most of the problems it has become the lot of the milk plant manager to bear, here too, good practices will give good results, poor practices will give poor results. The overwhelming cause of operational troubles can be laid squarely at the door of the people running the machines. Training programs conducted either by the plant or by the manufacturer are healthy approaches to the problem. Campaigns using posters, motion pictures, literature, plus experienced supervision in the plant will also produce results. The pictures that are shown in connection with this article were a part of such a campaign carried out in Sheffield Farm's organization. Last winter De Laval conducted a school for dealers and their servicemen. The dealers in their turn inaugurated a system of schools throughout their own organizations. A large number of these schools will operate this year.

There is no question that the heavy percentage of failures due to the human factor can be greatly reduced. The instructional techniques that are now available are excellent. The ability of the bulk of plant workmen to learn is borne out countless examples. There appears to be no reason why operational failures should not be substantially reduced. One of the positive steps that operators and their workmen can do to reduce the casualty list among their clarifiers and separators is to read the instruction manual. "Read the manual" say the manufacturers. "Do what it says to do and a great deal of your trouble will disappear."

●

Milk Sales to Remain High

USDA Report Predicts Continued High Level Consumption —Constant Prices and Production Expected But Exports to Decline

OUTLOOK FOR 1948, according to USDA's Bureau of Agricultural Economics: In general, demand, production, consumption, prices will be about same as this year. . . . Demand for dairy products and milk will be largely due to high income level and sizeable foods' exports. Food expenditures per capita in 1947 have been about 10 per cent higher in relation to income than before war.

Milk to Remain Firm

Fluid milk use per capita increased from low of 333 pounds in 1934 to 433 in 1945, but this year is expected to be around 400 pounds and to remain at this level in 1948. This is 8 per cent below war time peak but 20 per cent over pre-war average. Output of milk per cow in 1948 may about equal 5,000 pound record expected this year, although smaller feed supplies and lower dairy products–feed price ratio may decrease output during first part of year. There may be moderate decrease in whole milk sales from farms, due to favorable prices for hogs which will tend to increase feeding of skim milk in some midwestern states. Whole milk sales will, however, remain at high level, 60 per cent of milk produced in 1946 being sold as whole milk in comparison with 40 per cent in 1939 and about 33 per cent in early 1930's.

Exports to Decline

Although European need continues great, exports are expected to be lower in 1948 than in 1947 when they averaged, in terms of milk equivalent, about 3 per cent of total milk production, a drop from the 1944 peak of 5 per cent. Because of expected export decline in dairy products, some decreases in evaporated milk and cheese output can be expected. This is likely to be accompanied by corresponding increase in butter production. Per capita consumption of whole milk products in 1947, including evaporated milk, American cheddar, ice cream, will be at or near record levels, and this trend is expected to continue in 1948 with per capita use exceeding this year's 5.3 pounds of cheddar cheese, 18⅝ pounds of evaporated milk, 50.5 pounds of ice cream, 11.5 pounds of butter. . . . Farmers in 1948 are expected to receive about 4.2 billion dollars from sales of milk and dairy products, about same as in 1947, but net income will likely be lower due to increased costs of feed, machinery, labor.

Currently labor and price paid to dairy farmer for milk takes 80 cents of consumer's dollar paid for fluid milk; remaining 20 percent goes for plant expenses, supplies, delivery costs, insurance, depreciation, taxes, etc. Price increase percentages between May 1939–May 1947: Milk, 40; fresh eggs, 125; coffee, 124; potatoes, 79; bread, 70; Navy beans, 261; cabbage, 183; wheat flour, 180.

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CONVENTION REPORTS

Production and Merchandising Occupy Spotlight at Florida Conventions — No Limit to Expansion, Commerce Secretary Says

By NORMAN MYRICK

MIAMI BEACH, FLA.—"There does not appear to be any immediate ceiling on further possibilities for expansion," William C. Foster, Under-Secretary of Commerce, told the delegates to the 43rd Annual Convention of International Association of Ice Cream Manufacturers at Miami Beach on October 27.

ROBERT ROSENBAUM
Chairman of DISI and President of DISA

Part of the elaborate dairy week at the famous Florida playground, the Ice Cream men along with representatives of DISI, DISA, and the Milk Industry Foundation heard the Under Secretary declare "You men in the field of business must take your full share of leadership in the community. You must recognize these are times that call for statesmanship in every aspect of our national life."

Although attendance figures fell somewhat short of the anticipated number total registrations were well beyond the 3000 mark and officials expressed gratification that such a large group made the long trek to the meetings.

Blue skies and white frosted breakers rolling in on the fabulous cresent of Miami Beach helped to dispell the havoc wreaked by two hurricanes, a tornado and abnormal fall rains that turned southern Florida into a gigantic quagmire.

Foster Sounds Keynote

Foster, who was one of half a hundred distinguished speakers on the convention programs, sounded the keynote of the meetings. "Our economic situation today represents a high point in national development begun many decades ago." Similar sentiments were expressed by Floyd E. Davis, Office of Foreign Agricultural Relations in the United States Department of Agriculture who declared, "The principal feature of the world situation in dairying today is the strong demand for milk and milk products even at relatively high prices."

Speaker after speaker, however, warned that in spite of high prices and high demand the problems of production and of merchandising were of the greatest importance to the future of the industry.

Quentin Reynolds, noted author and journalist, pointed out that "although you may build a better mouse trap the world will not beat a path to your door unless you tell the world about your product." Citing the example of Miami Beach that a quarter century ago was a strip of barren wasteland with little more than "climate to recommend it", Reynolds described how the resort had become world famous through the effective use of a highly intelligent public relations program.

Other speakers, discussing the subject of employing mass media to present an idea to the public, stressed the necessity of thinking in terms of nationwide markets. W. F. Githens, President of Newsreel Theatre's, Inc., of New York, supported the position with the statement that "A movie costing ten thousand dollars and shown to a hundred and fifty salesmen is a poor investment but a ten thousand dollar movie shown to 45 million people is one of the most effective and inexpensive ways of disseminating ideas".

Rosenbaum On Supply

Robert Rosenbaum, President of Dairy Industry Supply Association, outlined the supply situation at the present time. Mr. Rosenbaum noted that "we are still beset by complex problems that have not vanished with the smoke of the battlefields." Although there are some bright spots in the supply picture, notably in glass containers, the overall field shows a large demand irritated by shortages of certain materials, particularly sheet steel. Equipment manufacturers appear to be making some headway against the huge backlog of orders that piled up during and after the war but deliveries in many items are still on a six months to a year basis.

The Supply Association President pointed out that one of the factors delaying efficient production was the uncertainty produced by customers in an effort to get equipment. "Many customers placed orders with more than one manufacturer for similar pieces of equipment and completely forgot to cancel when they were assured of prompt delivery by one on whose records their order reached the top." Also, the speaker said that many companies who had ordered equipment changed their plans but requested that their orders remain in a "deferred" status.

MIF President Speaks

Milk Industry Foundation, with an estimated attendance of more than fifteen hundred delegates were warned by their President Raymond Skinner of the tendency toward "more wages and less work". Mr. Skinner lauded the fluid milk industry and said "Constant employment of new methods of efficiency in processing and distribution has enabled the fluid milk industry to occupy an enviable place among the food suppliers of America".

Comparing the increase of milk prices with the average of all food costs Mr. Skinner declared that "a substantial part

RAYMOND SKINNER
President of Milk Industry Foundation

of the increase in milk prices has been passed on to the dairy farmers of America to enable them to meet rising costs in production and insure adequate supplies of milk of high quality".

Mr. Skinner scored the tendency toward "more wages and less productivity" and said "We of America cannot much longer carry our excessive burden of non-production overhead resulting from the great world conflict and assist peoples

(Please turn to Page 69)

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THE FUTURE
of
INDUSTRIAL RELATIONS
in the
UNITED STATES

By HAROLD F. NORTH

Industrial Relations Manager of Swift & Company

HAROLD F. NORTH

"For want of a nail——" Mr. North, an authority in his field, presents a stirring picture of the future of industrial relations in this country. Speaking before the fall meeting of the National Association of Dairy Equipment Manufacturers and earlier before a seminar at Princeton University Mr. North gave needed voice to a problem, the solution of which is "an art and the full expression of sensible and honest compromise."

IN DISCUSSING INDUSTRIAL relations I think that we must accept at the outset the premise that the future of industrial relations in the United States has been influenced and shaped by the course of events in the past. The full consequence of historical events can always be seen much better in retrospect than in prospect.

It would be folly for anyone, much more so for me, to make long range predictions with a tone of authority that may very likely rise up to haunt the prophet ere the sound of his words is lost. Industrial relations is a dynamic thing—changing more in character from day to day than it does from year to year. Nevertheless, a change is constantly taking place for its history reveals that it has been a different emphasis at various times in the progress of our industrial development. Changes in it have resulted from the influence of social, economic, and political changes. It can be no different in the future. Therefore, it will be helpful for us to consider, even though briefly, from whence we have come in the hope that it will suggest where we are going.

In the early history of our industrial development, human relations problems received only little attention from management. What there was of it was inescapable and it was unorganized as we view our modern industrial relations organizations. It dealt with human relations problems as they arose according to the pattern of circumstances, interests, and perhaps more often than not a purely emotional basis. This is not very different, if at all, from the kind of attention which was given to the production and distribution problems of that day if they are compared with modern and more efficient present day methods. At the same time we must recognize it was this unorganized management attention that set the stage of deportment from which has sprung modern practices for medical service, employe benefit associations, workmen's compensation laws, payment of wages and salaries durmg sickness and disability, guaranteed wages, pensions, just to name a few.

It was a progressive business management that quickly recognized the need for more organized attention to the problem in order to establish uniform treatment in a businesslike way what it did; developed the early forms of centralized employment; emphasized collective bargaining through employe representation plans, work councils; established safety programs, group insurance, vacations with pay, and various welfare programs. In some respects this has been called the paternalistic phase in our industrial relations program development.

Legislative Phase

Although the entrance of government into industrial relations began as far back as the turn of the century with its first important act being in the field of workmen's compensation laws, its real attempt to develop a full scale social and economic program did not occur until after 1930. This action of government altered the pattern of management attention to industrial relations though the enactment of legislation, issue of executive orders, and through its administration practices. By its action is created what may be called the legislative phase of industrial relations and at the same time set the stage for what some day may occur—genuine labor-management cooperation in the effort to find a solution to human relations problems of people working together.

The National Labor Relations Act made possible the growth of unions on an unprecedented scale and gave to them unprecedented authority. The National Defense Mediation Board, National War Labor Board, fact finding panels, all were efforts by the government in the field ot compulsory arbitration to establish pattern of agreement and performance between groups of emloyes and employers. The Labor Management Relations Act of 1947 modifies this position in the light of a dozen years of experience and attempts to establish the relative rights and responsibilities of both labor and management. In doing so it also defines the position of government in such matters all in the interest of the public welfare. The workmen's compensation laws of the various states, the Federal Social Security Act, and Fair Labor Standards Act are a few examples of legislative attempts in the field of employe security.

It would be to a large extent ego satisfying if industrial relations managers or the executives to whom they report could say *they* have established the industrial relations policies and practices which are in effect in their companies. But such is not the case, for all the modern industrial relations programs have been shaped under the direct influence of four factors. In some respects they have been voluntarily established by management because it felt that it was good business for it to do so. In others they recognize the custom of the community or industry of which the company is a part. Some parts are arrived at in collective bargaining either through the agencies of organized labor or some other means that provides for collective discussion of matters of mutual interest. And finally, they may be

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Basic Character of Problem

The development of formal programs by American business management to meet its industrial relations responsibilities is as much an epic of progress in its field as is the industrial development of the country. No matter what form these programs take or what their motives may seem to be, the problem in its basic character is and always has been either "finding men for work" or "finding work for men" each with the purpose of maintaining or improving the standard of living. It will be no different in the future. This simple review of what has happened in the unparalleled growth of this country and its industrial and commercial achievement is interesting not only from an historical point of view but it is extremely valuable in suggestions for the future. If there could have been always a perfect balance between those who wanted employment and what employers could offer in the way of employment; if at the same time the standard of living could have been even slowly improved, it is unlikely that many of the industrial relations problems of the past would have occurred.

"Where shall we go?" is in fact the question suggested by the subject "The future of industrial relations in the United States". The answer to this question rests squarely in the hands of labor and management, for in the long run legislators will do only what seems politic for them to do at the time. This is perfectly natural in a democracy for the kind of legislation enacted usually is a reflection of the attitudes of the people who have reached the point of being articulate. No better example can be found than overriding the President's veto of the Taft-Hartley bill. The question which labor and management must consider and their decision as well as the actions which it inspires are what will determine the future of industrial relations in the United States.

Shall we permit bitterness and apathy to continue to provide the atmosphere of discussion? Or shall we recognize that the best interests of both labor and management are served when there is a full recognition of their common objective—service, and then turn all efforts in the direction of making it the best which can be offered.

Can we come to recognize that all rights claimed by either carry with them corresponding responsibilities which cannot be ignored or treated lightly even though it may be unpleasant to do otherwise. This means assuming the responsibility for sound sensible administration as a proper expression of the right to organize and bargain collectively; it means complete honesty and fairness in the administration of collective bargaining agreements with the prompt recognition of injustice and equally prompt correction where needed.

Beyond the "Me World"

Can we develop a capacity for understanding—a simple understanding that enables us to see labor problems in their true perspective? To do so means going beyond the small "me world" in which each one of us lives, both in the matter of time and jurisdiction The farther we become removed in time and responsibilities from the world in which those who work with us live, the more difficult it becomes for us to understand the impacts that are peculiar to their environment and to the groups of which they are a part. The democracy in business that encourages people to grow in stature is all very fine, a powerful incentive for freedom of action and opportunity but frequently it leads to the false assumption that because we have come from the ranks we completely understand the ways of all people in the ranks. Very few people, if any, can, in the midst of those pressures that are a part of the responsibilities of managing a large business enterprise, retain the feel of things at the worker level without extraordinary effort on their part.

On the other hand, employes and their labor leaders who have never known the responsibility for the direction of work done by others; or for dealing with human relations problems that arise out of the hopes, ambitions, and frustrations of people; or who have never had the responsibility for meeting payrolls; must find it difficult to understand the impacts of the "me world" in which management lives. There is a way in which this simple understanding can be acquired. It is by the simple process of developing confidence in and respect for each other; accepting people and their motives to be honest and just until there is good reason to believe otherwise. It requires the complete abandonment of all actions that tend to express resentment, distrust, and the vilification of the motives of people whose intentions are in fact good.

Symptoms or Causes

Can we negotiate labor agreements that will establish a broad framework of policy to be administered in individual cases according to the principles of common sense and justice? Or must we go along in a futile effort to write agreements or policy statements in legalistic terms and then administer them in a way that ignores the merits in individual cases? I think we can. But how much depends upon our ability to develop mutual confidence in and respect for each other. Agreements should be written in language that outlines general principles for just application in individual cases rather than attempt to write a rule for every known or conceivable case that may arise. There must be an attitude on the part of both labor and management representatives which will make full allowance for honest mistakes and avoid treating differences of opinion or judgments in matters under consideration as being ulterior in motive.

Shall we continue to deal with the symptoms of problems rather than with their causes? If we do, we are bound to suffer the consequences of transferring the dissatisfaction to other persons or places. The cumulative effect of this failure may well cause large scale dissatisfaction with a complete break in normal human relationships. Those who have made a thorough study of the causes of grievances have quickly learned grievances seldom are what they seem to be on the surface. Frequently they have roots in obscure causes that are much more serious than the symptoms to which treatment is accorded. Those who show real leadership in the direction of people have learned well the art of dealing with the basic causes of such problems and making the corrections where they belong.

Confidence and Respect

Can we come to the full realization that all progress in human relationships is almost wholly dependent upon both confidence in and respect for each other? Then can we so conduct ourselves so as to merit both. This is a selling job. It is no different from what is faced by the salesman who with order book and price list in hand, attempts to convince a customer to purchase the goods or services of the company because it is to the customer's advantage for him to do so. In the same manner the true leader, foreman or manager, is the one with the selling ability to convince subordinates that it is to their best advantage as well as that of the employer for them to do the prescribed work in their assignment. To do this means the sound development of new habits of thinking on the part of both labor and management at all levels of authority if they are to properly deal with the simple human relations problems.

If there is any lesson in all of this, it must be that which is characterized by the simple philosophy found in the book written by Curtis Bok titled "Backbone of the Herring"—that "one must not struggle to force a solution, but instead must allow it to grow within him". In our efforts to solve problems of industrial

(Please Turn to Page 61)

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Some Notes on . . .
ECONOMIC CONDITIONS *on* DAIRY FARMS

Dr. L. C. Cunningham, Cornell Economist, Sees a Poor Winter Ahead in Milk Supplies — Feed and Labor Heavy Factors in New York State

Increasing restlessness, reflected by uncertainty in most of the nation's food markets, is a product of the upward trend of prices. Dr. Cunningham's careful investigation of what it costs to produce milk is especially valuable at this time.

●

ECONOMIC CONDITIONS GENERALLY on dairy farms in New York State this fall are less favorable than during any year of the last several. Owing to adverse weather conditions, local feed supplies including both grains and roughages are in considerably shorter supply or lower quality than a year ago. In addition, prospects for inshipments of concentrates into the state, which normally constitute about three-fourths of the total concentrates requirements on dairy farms are considerably less favorable because of the reduction in the national corn crop from a year ago. Local pasture conditions, however, have been unusually favorable. Farm labor conditions are reportedly eased somewhat with respect to supply, but farm wage rates have shown no tendency to decline as yet. Costs on dairy farms this fall are the highest on record. They are running about 10 per cent higher than a year ago with the prospect that feed prices may go even higher.

Local Grain and Roughage Supplies

According to the Federal-State Crop Report for September 1, the production of oats in New York State this year was less than one-half of last year's bumper crop and only about two-thirds as large as 10-year (1936-45) average.

Total hay production was above average, but the feeding quality is much below average. By the end of July this year only 50 per cent of the first cutting of hay was harvested, as compared with more than 80 per cent by that date last year and nearly 60 per cent by that date in 1945. On September 1, dairymen reported quality of hay cut this year lower than for any of the last five years.

On September 1, the corn crop in the State was reported to be about 20 per cent smaller than a year ago and somewhat below the 10 year average.

National Feed Supplies

Taking into account the reduction in the national corn crop from 3.3 billion bushels in 1946 to 2.4 billion bushels this year, there is a gap of at least 10 per cent between the actual amount of total concentrates being fed in 1946-47 (October 1) and the amount available for feeding purposes in 1947-48, assuming normal wheat feeding on farms.

With such a limited feed supply, the problem of administering fluid milk prices to keep them in adjustment with the free market prices of other livestock products, such as pork and beef, so that dairymen can compete successfully for their share of these feed supplies is an acute one, particularly in the fall season of short milk supply. In August, 1947, United States hog prices were 3.36 times their 1910-14 prices and beef 3.69 times, whereas the New York farm price of milk (largely an administered price) was only 2.72 times its 1910-14 price.

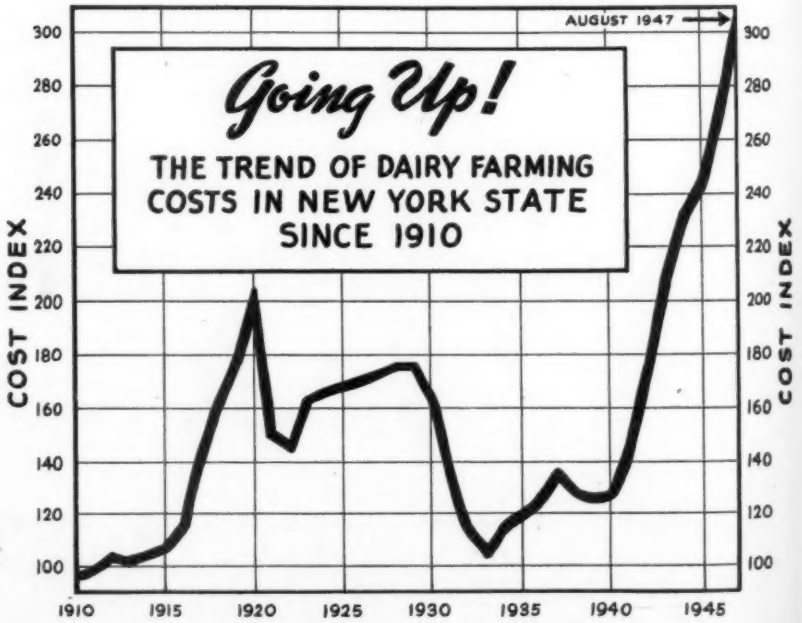
The Relation Between Milk Prices and Feed Prices

Rising dairy feed prices have brought to a close, at least temporarily, an extended period of favorable milk prices relative to feed prices in New York State.

In August, 1947, the farm price of milk was $4.55 per 100 pounds, and on a relative basis with the period 1910-14 used as 100 the index of this price was 272. The retail price of purchased dairy feed was $4.30 per hundredweight, or an index of 261. The ratio of these two indexes in August was 104. In January, 1947, the ratio was 139. From 1940 through 1946, the ratio averaged 125. That is, the relationship of milk to feed prices was 25 per cent more favorable in the period 1940-46 than it was in 1910-14.

This favorable ratio in recent years has greatly stimulated the rate of grain feeding per cow on dairy farms. In the seven-year period 1940 to 1946 on farms

(Please turn to Page 59)



*Presented at a meeting on September 22, 1947 in New York City, called by USDA to consider fluid milk price increases in the New York market.

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Irish Milk Flown to England

Drought Creates Milk Shortage on Island — British - Danish Food Talks Fail, Look to Canada for Additional Supplies

LATEST NEWS FROM Britain features flying dairy vans and the collapse of dairy produce talks with Denmark. Both are related to Britain's urgent need for more dairy produce, for milk fats and butter and to the current drought which has dried up British production at a time when a largest possible volume was required.

The current dry spell—for many areas there had been absolutely no rain for more than six weeks—has had very serious results on milk production, and promises to continue to affect the situation unless some speedy recovery is demonstrated. A serious shortage now exists over England although Scotland and Northern Ireland are still relatively safe.

An official of the National Dairymen's Association, speaking in London said:

"We are worried. We are trying to distribute as fairly as we can such milk as is available."

The Midlands of England are among the areas worst affected by the shortage, and in some towns non-priority consumers have been receiving no milk at all during the last few days.

Resort to Planes

In this emergency the Milk Marketing Board hired two York freight planes to fly milk from Northern Ireland, which has been assisting materially for a considerable period although previous supplies have been all sent by sea. The plane carries one hundred and forty-five 10 gallon churns on each trip. Altogether about 10,000 gallons of milk will be flown daily from Ireland to England, the bulk of the output being used in the Liverpool area.

This is, of course, an emergency arrangement. Whether milk transportation could be economically organized to use airplanes on a regular schedule, remains to be demonstrated.

The collapse of the Anglo-Danish trade talks means a definite loss of supplies for Britain. According to the British authorities, the policy of maintaining parity between Empire prices and Danish prices prevented the payment of the higher rates which the Danes asked.

Allege High Prices

The official British attitude has been given in a statement made by the Ministry of Food in Britain. This says that the breakdown resulted from the refusal of the Ministry to pay increased prices for smaller quantities.

According to Mr. Strachey, Minister of Food:

"Representatives of the Danish farmers asked for increased prices of from 242s to 341s 6d per cwt. for butter; from 161s to 235s per cwt. for bacon; and from 17s 6d average to 26s average per 120 for eggs."

M.O.F. representatives stated that they were not prepared to pay greatly increased prices for smaller quantities. The economical and financial crisis in the United Kingdom made it imperative to husband Britain's overseas expenditure in non-dollar as well as dollar sources. Prices asked were far in excess of the prices which the United Kingdom was paying for her major supplies, especially in the British Commonwealth.

We can not afford to pay fancy prices for butter and bacon, which would be completely out of line with our main and loyal supplies in the Southern Dominions. Let us hope it is merely a suspension, and not a final breakdown in negotiations. We cannot at the moment bridge the gap in the prices to be paid for butter and bacon. For eggs, the difference is not so wide, and an agreement may be reached. There is hope of increased bacon supplies from Canada."

Urge Dairy Machinery Export

The British dairy machinery industry has been told by the President of the Board of Trade that it must export a much larger volume of goods in the coming year than in any period in history. This is part of the current British 'Export or Starve' policy enforced by the hard economic facts of postwar trading. Targets have been set, for the first time since the full force of the crisis was made public and industry given its first factual instructions as to the extent of the effort which is necessary. Each of the country's main industries have been given similar instructions, that for the dairy machinery industry demanding an increase in exports 5½ times the actual last quarter 1946 exports.

Figures for the industry are these:

Actual 4th quarter 1946	Target Mid 1948	Target End 1948
0.045	0.15	0.25

Figures are in terms of millions of pounds monthly, which means that by the end of 1948 British dairy machinery exports must be in the region of £250,000 monthly. Factors of importance are these. The industries which fail to achieve the desired level of exports will have their raw materials diverted to those industries which can achieve their export targets, thus introducing indirect national control of manufacture.

While hard currency areas will be especially favored by these plans, the development of Empire and Colonial markets is especially desired and will be given particular attention.

New Projects in Britain will be largely suspended except where they contribute to the general policy of expanding exports. All capital expenditure will be surveyed and cut and manpower will be directed, voluntarily, or by controls if necessary, to ensure that labor is available for the vital industries.

●

Holstein-Friesian Competition

Brattleboro, Vt., Sept. 23—Approximately fifty Holstein-Friesian breeders entered their purebred Holstein dairy cattle in the open competition at the Eastern States Exposition in Springfield, Mass., Sept. 16-17, winning a total of 123 awards in the Holstein division.

Top money winner was Amcana farms of Litchfield, Conn., owned by Harold S. Goldsmith and operated by W. A. Baker. Amcana won 23 awards on animals from their herd, taking 6 first ribbons, and 4 special awards.

Grand champion bull was Strathaven Supreme Comrade owned by Smithland Farm of Canastota, N. Y. Junior champion bull was Amcana Farms' Baker Farm Dunwood Pride.

In the female division, the grand championship was won by Hickoryville Moore Canary, shown by Harden Farms of Camden, N. Y. Junior champion female was also won by a Harden Farms animal, Harden Farms King Queen.

Harden Farms went on to win first place in the dairy herd class. Osborndale Farm, owned by Mrs. W. S. Kellogg of Derby, Conn., won the get of sire competition with the get of Montvic Lochinvar. Mrs. Kellogg also won the Highlawn Farm special award for get of sire, with the same group.

An unusual feature of the show was the special class of cows judged on udders alone, won by Woodland Pabst Hengerveld Lady of Amcana Farms.

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What Every Sailor Should Know (About Painting) — as told by the Navy

Successful Painting Requires Careful Surface Preparation

THE FIRST STEP AND ONE that determines to a large extent the success of the paint application is the preparation for painting. The admonition to "Save the surface and you save all" isn't just a lot of hot air. Paints carefully applied over a properly prepared surface will endure and will not require frequent re-painting or constant touch-up.

Here, in brief, is the formula for a successful paint job:

1. GET THE SURFACE CLEAN BEFORE YOU PAINT!

2. APPLY FOUR COATS OF PAINT TO EXTERIOR BARE STEEL SURFACES.

The enemies of paint—rust and scale, oil and grease, moisture and salt deposits must be completely removed before new paint is applied. If the area is covered with dirt or grease, the coating does not come in contact with metal and so does not adhere. If the dirt comes off, the coating comes off with it and you're right back where you started. It's the same with grease. If rust is not removed, the paint is under a handicap from the start. Under severe conditions of exposure to salt water, rain and sun, rust soon breaks through again.

It works something like this. All surfaces, as you know, have minute indentations, or pores, sometimes so small that you can see them only through a microscope. In addition, good painting surfaces have small irregularities like a continuous series of hills and valleys. When the paint is applied, it flows or is forced into these pores and valleys securing a foothold. It's the same as a mountain climber who climbs a steep cliff by clinging to holes and irregularities, such as rocks. If paint is well worked into these "holes" by brushing or spraying, better adhesion will result.

Coming back to the mountain climber. If he should step on a loose rock or projection, the rock will gve way and so will he. It's exactly the same way with a paint film if it's applied over loose projections which are not secured to the surface. That's the reason for the warning—NEVER PAINT OVER A SURFACE WHICH IS NOT CLEAN. Do not paint over shiny smooth surfaces which don't have the small hills and valleys so necessary for good adhesion. Roughen them with a wire brush or sandpaper.

Steel surfaces are prepared for painting by these methods.

1. Sandblasting.
2. Scaling and power wire brushing.
3. Scraping and hand wire brushing.

Sandblasting is the only method which thoroughly cleans steel of everything including mill scale. In the same operation it roughens up the surface to permit good adhesion. There are two methods of sandblasting—dry and wet, each with its special advantages.

Dry blasting is used in confined places, such as tanks, where the dust can be controlled and where it would be difficult to remove the water if the wet process were used.

Wet blasting is used in the open, on hulls from the main deck down and other places where dust must be kept down. Do not blast near exposed machinery, compartments where others are working, or places where it is impossible to control the dust and water.

By scaling and power wire brushing, most of the old paint and heavy scale is removed with a chipping hammer. Then it's cleaned with a rotary wire brush. This types of cleaning is not as thorough as sandblasting since it removes paint only from the high spots but will not clean out the pits. It also takes more time and men. Take it easy with the chipping hammer. While it chips the paint, it will also chip the steel and raise sharp points from which the paint will pull away and leave thin spots. The thin spots are like the seat of old dungarees—not much protection. While the scraping is going on, cover all the electrical equipment in the vicinity. After the paint removal job is done, thoroughly clean all electrical equipment. Scraping and hand wire brushing is similar to the

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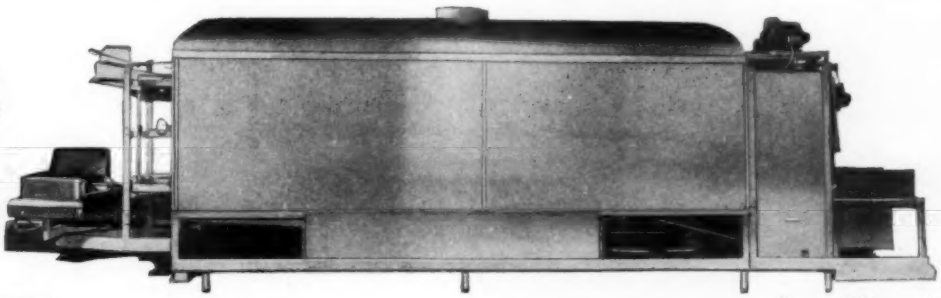
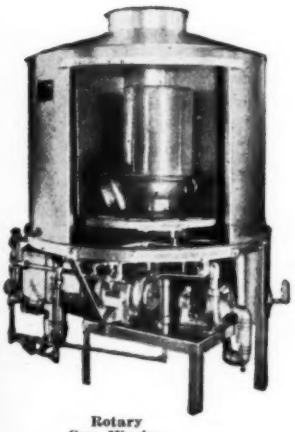


Built in Sizes 6 to 16 cans per minute



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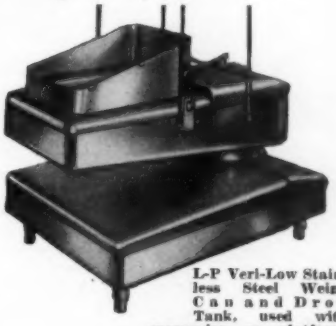

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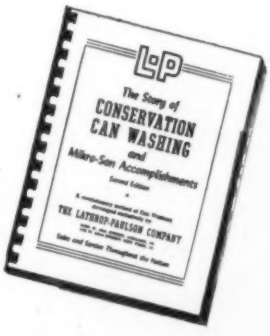
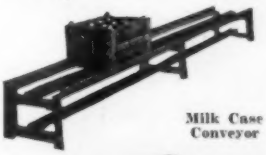
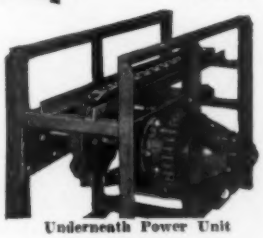


Milk Can Conveyor



Milk Case Conveyor



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scaling and wire brushing method except that no power tools are employed. A hoe or flat steel piece is used to scrape off as much rust, loose paint, dirt, etc., as possible and a hand wire brush finishes the cleaning. Obviously, the power tool method is superior.

Wooden surfaces are cleaned by:

1. Scraping and wire brushing.
2. Burning and scraping.

Scraping and wire brushing is used principally on very large wooden surfaces such as the exterior hull. Burning is

dangerous and is not to be recommended. Use of sandpaper and paint remover is desirable only for small areas such as furniture or other fine finish work.

In the burning and scraping process, the old paint is softened with an electrically heated tool or a gasoline blow torch. Hold the torch in one hand to blister the surface. While the paint is still soft and hot, remove it immediately with the scraper which you hold in the other hand. Don't burn with a yellow flame. Use a blue flame close to the wood. Move back and forth slowly. For safety's sake, have a fire extinguisher at hand.

Cleaning of Topside Areas

The amount of exposed bare steel, the amount of intact primer coat, and the amount of finish coat firmly adhering will determine which of the methods described is to be used in topside cleaning. This includes exteriors, interior bulkheads, overheads, and decks, and special purpose work such as tanks, lockers, etc.

If the surface is badly corroded and a large percentage of bare metal is exposed, it should be completely cleaned by the most suitable method described. Be sure that all rust is removed or it will continue to spread and force the paint off.

If there are large areas of firm primer or finish coats and relatively little corrosion, it is usually advisable to touch up these areas instead of completely cleaning and painting. First, scale and wire brush all corroded areas to bare metal. Then, wipe off any grease or oil on the surface with a rag soaked in gasoline or thinner since wire brushing will not remove it. Then, with a hand wire brush roughen the complete surface, removing all minor corrosion, loose paint, dirt, etc.

*This is one of the chapters in the 30-page, illustrated booklet "Brush Up On Your Painting." Issued by the Bureau of Ships for instruction of Navy personnel, much of its sound information applies equally well to the dairy industry.

Need anything in the equipment line? There are several good buys over on the Wants and For Sale section of this issue. Better take a look. Page 70.

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Ice Cream Taboos Fall

Chicago—Five food fallacies fell by the wayside recently.

Fallacy No. 1. You may use ice cream as a dessert, but it is not a dessert in the sense that pastries are—ice cream is a nutritious basic food.

Fallacy No. 2—ice cream contains starch, and will hold its shape if you leave it, like bananas, outside the refrigerator. Well, everybody knows, or should know, that ice cream melts. And, says the National Dairy Council, there isn't a bit of starch in ice cream, if it's made according to ordinary standardized methods, as virtually all American ice cream is.

Fallacy No. 3—ice cream is loaded with sugar. Wrong, says the National Dairy Council. Ice cream contains a very small amount of sugar. As a matter of fact, physicians frequently prescribe ice cream in non-fattening diets, because of its relatively low caloric content.

Fallacy No. 4—ice cream contains too much air. No, says the National Dairy Council—only enough air to make ice cream palatable and soft enough to eat. Without air it would be untasty and as solid as a rock.

Fallacy No. 5—You have to be careful about what ice cream you buy—it might not be safe to eat. Wrong, says the National Dairy Council. Thanks to modernized production methods, high sanitary requirements imposed by the dairy industry, and pure food laws, ordinary ice cream is just as safe to eat in the east as in the west, in the north as in the south. Anywhere that standard ice cream is sold you can get a safe, and palatable, nutritious food.

But, adds the National Dairy Council, that only goes for American ice cream. The United States leads the world in the quality of this dairy product.

Insure Future Profits

Orangeade made from Mission Dairy Orange is a *long profit item* for dairymen. The delicious fruit flavor of this famous orange drink sells and re-sells, at a liberal margin of profit... Make *your* present customers more profitable customers in 1948 with Mission Dairy Orange—the best liked of orange drinks. Send for your sample today.

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MISSION *dairy* ORANGE

RESEARCH REPORT

Marketing research men recently gave signs of being better than normal relatives to the parents of the Research and Marketing Act of 1946. Although the Act received the breath of life only in August this year, discussions at the September meeting of agricultural economists indicated that researchers have dreamed, hoped and made some plans for it during the pregnancy which might have been false. The dreams revealed were not so lofty as some might hope, nor were the plans as daring as the times invite. For the most part, studies contemplated under the Act will tend to follow established patterns.

Notable exceptions to past practice will be the work done on a regional or inter-regional basis. Few if any agricultural products recognize state lines. And it appears that such limitations to milk, poultry, fruit, marketing research will no longer be restrictive. Students of fluid milk marketing particularly have long hoped for freedom to handle research on a milkshed or inter-market basis. This interest plus some limited experience, added to a naive faith that funds would become available has given them a headstart in getting underway.

A further exception to routine studies was the plea by some that marketing research follow through. Studies heretofore have been of the farm to market type; the activities in the marketing place and beyond to the consumer being untouched. Research, if it is to contribute much to efficiency and orderliness, needs to be comprehensive and the workers need to think in the broader terms of public welfare rather than the less inclusive ones of farm welfare.

Dairy Herd Improvement Projects

Approval of two research projects on dairy herd improvement to be conducted under the Research and Marketing Act of 1946 was announced recently by the U. S. Department of Agriculture. One will be aimed at developing strains of dairy cattle especially adapted to climatic conditions in the southern States, the other at getting higher production per cow for the small dairyman throughout the United States. Both projects will be conducted jointly by the Bureau of Dairy Industry and cooperating State experiment stations. The work will be coordinated with other phases of dairy cattle research now in progress.

With respect to development of better dairy strains for the South, plans are to cross heat-resistant Red Sindhi bulls with Jersey or other domestic dairy breeds and to study the effect of further crossbreeding, outbreeding, or inbreeding on the development of desirable qualities in the progeny. In approving this project, E. A. Meyer, administrator of the research act, pointed out that the average milk production of cows in the southern States in 1946 was less than 3,200 pounds per cow compared with 4,891 pounds for the whole country.

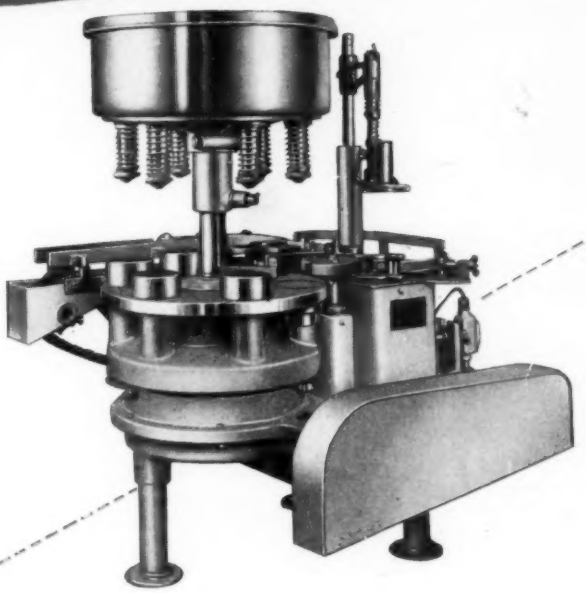
Two Projects At Ohio

Contributors to the Ohio Dairy Products Research Foundation have received a report from Professor R. B. Stoltz of the Ohio State University Department of Dairy Technology with respect to research projects that have been completed within recent months. Two projects "Relationship of Acetone Bodies to 'Cowy' Flavor in Milk" by D. V. Josephson and D. G. Keeney, "Effect of Refrigerator Storage on the Keeping Qualities of Pasteurized Milk" hold considerable value for the industry.

Also listed were projects now under study and a number that are scheduled for future work.

XUM

For *Your* DAIRY IMPROVEMENT PROGRAM



A DAIRY IMPROVEMENT PROGRAM

1. Increases Peak Capacities
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8. Increases Cream Volume
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5. How to INCREASE PROFITS

Constant production and operation, trouble-free performance, quick change-over . . . these factors, among others, distinguish the S. B. C. Automatic Rotary Filler and Capper as an integral part of your Dairy Improvement Program.

Extremely low first cost, plus extraordinary efficiency in operation, adds up to speedy, constant production and inexpensive operation. This unit gives trouble-free performance in filling and capping all milk drinks and dairy specialties in ½ pint to quart bottles.

Send for completely detailed information on this cost-cutting unit, contained in Bulletin 38, with descriptions of many special features of design. Write . . . Specialty Brass Co., Dept. AMR *Kenosha, Wis.*

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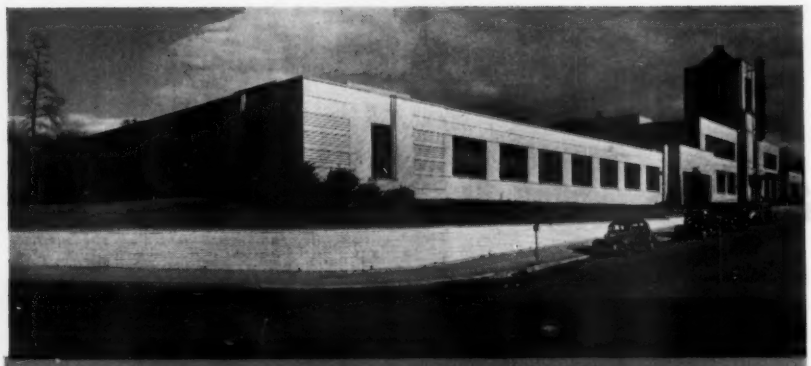
SPECIALISTS IN QUALITY DAIRY EQUIPMENT



GREEN SPRING DAIRY

The Manager of an Outstanding Maryland Plant Discusses the Problem of Changing from Round Bottles to Square

Dairy operators across the nation are debating the question of whether to change or not to change. The experience of Baltimore's Green Spring Dairy should be carefully considered in arriving at a decision on the issue of round bottles or square. In an interview with the editor, Green Spring's able manager, J. R. Parks throws some light on a perplexing problem.

●

PRESIDING EFFICIENTLY OVER SOME FOUR or five acres of Maryland's red earth is Baltimore's Green Spring Dairy. Baltimore, if you will examine your atlas, boasts of more than a million souls and the rank of seventh city in the land. Green Spring trucks carry "nature's most nearly perfect food" to almost ten per cent of the city's population over the 118 retail and wholesale routes operated by the company.

Housed in a handsome cream colored brick building with plenty of well arranged loading platforms, parking space, garage accommodations, and truck storage area, the plant is adequately equipped to process 100,000 quarts of milk each day.

Like most of the nation's dairies, Green Spring came through the war period with a fine record of service and a good deal of equipment that showed the wear and tear of that hectic period. One of the first problems that the dairy tackled in bringing facilities up to date was a change-over from round bottles to square.

Changing a hundred thousand quart plant from round to square is not an undertaking to be entered upon lightly. The Green Spring approach to the problem was one of thoughtful caution. The change was tried out on five routes as a tentative venture with the idea that if successful here the long range program, aimed at practically a complete change-over, would be undertaken. According to J. R. Parks, general manager of Green Spring, the trial was satisfactory and the desirability of going ahead convincingly demonstrated. The process of change-over has been going on for two years.

On the first five routes careful surveys were made of consumer reaction, surveys that uncovered some valuable information. In general housewives were enthusiastic about the new type bottles and, as word passed along the neighborhood grapevine, the company found that far from having to "sell" the idea of the square bottles, customers were asking for them. The most specific complaint lodged against the square bottles centered around the fact that the square sides made the bottles difficult to hold and they tended to slip out of the housewife's hand. This was a practical matter that alteration in design eliminated.

The reasons that prompted the Green Spring Dairy to undertake the change-over were many. Perhaps one of the most important was the need for more storage space. Storage requirements had been increased by growth of business volume, complicated by the every other day system of delivery. Although the Green Spring system is not strictly every other day, six day wholesale and four day retail, storage space was at a premium.

The smaller storage space requirements of the square bottles were enough to start the firm on the road to conversion. Mr. Parks said that storage space savings, with the bottles in crates, amounts to between 25 and 30 per cent.

Little Alteration Necessary

Very little alteration in plant equipment was required to handle square bottles as opposed to round. It was found, however, that the amount of equipment change required was closely related to the size of the openings in the bottles. Most square bottles have a 45 millimeter opening but in order to

Please turn to Page 68)

Changing over from round bottles to square is not an easy task either economically or operationally. The Green Spring plant, however, is doing the job without interrupting production.

Now-for the first time

. . . a centrifugal pump that actually exceeds present sanitary code requirements!

the NEW TRI-CLOVER Champion

"Exploded" views showing precision fabrication, complete sanitation, and ease of cleaning offered in the new Tri-Clover Champion Series Pumps.

CHAMPION PUMP CAPACITIES	
MODEL MS	0.0 G.P.M. @ 15.5 ft. head 66 G.P.M. @ 0.0 ft. head
MODEL S	0.0 G.P.M. @ 25.0 ft. head 95 G.P.M. @ 0.0 ft. head

Offering all these exclusive features:

★ COMPLETELY DEMOUNTABLE HEAD ★ PATENTED CARBON-FACED NEOPRENE SEALS ★ ALUMINUM ALLOY RUST-RESISTANT BASE AND BRACKET ★ STAINLESS STEEL LEGS . . . FRONT LEG ADJUSTABLE ★ ALL CONTACT PARTS ARE POLISHED 18-8 STAINLESS STEEL ★ GREATER EFFICIENCY AT THE SAME LOW PRICE AS PREVIOUS MODELS.

Made to PERFECTION for your PROTECTION

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Kenosha, Wisconsin

TRIALLOY AND STAINLESS STEEL SANITARY FITTINGS, VALVES, PUMPS, TUBING, SPECIALTIES

FABRICATED STAINLESS STEEL INDUSTRIAL FITTINGS AND INDUSTRIAL PUMPS

THE Complete LINE

See your Tri-Clover Jobber for complete details

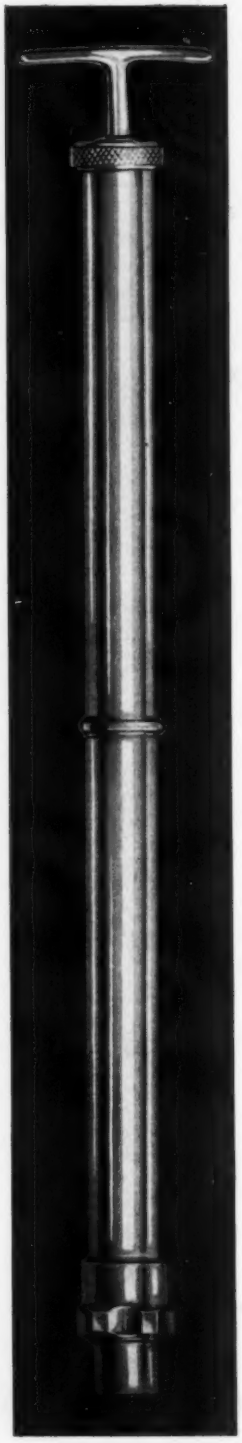
10,000 users can't be wrong!

L-W MILK SEDIMENT TESTERS ARE FIRST CHOICE OF FAMOUS INDUSTRY LEADERS *Everywhere*

● There is no substitute for the kind of quality that's built into L-W Testers. That's why industry leaders like Armour, Swift, Wilson and Cudahy Packing Company—Kraft Foods, Borden, Pet and Carnation, and scores of others, choose L-W Testers for their plants.

Fully approved by State Health Departments and other regulatory agencies, L-W Testers feature special rounded sanitary threads, positive quarter-turn head lock, and a butter-fat-resistant, neoprene plunger for trouble-free operation.

L-W is the best long range investment for your plant, too!



L-W MODEL "B" MANUAL TYPE TESTER

L-W Manual Model "C" and Mechanical Type L-W Testers are also immediately available

WRITE FOR NAME OF JOBBER NEAR YOU OR ANY OTHER INFORMATION

DAIRY SUPPLY DIVISION
THE LANGSENKAMP-WHEELER BRASS WORKS, INC.
1151 WEST 79th STREET • CHICAGO 20, ILLINOIS

Fire Prevention Program

1. *Inspection and Replacement*

Assign a fire protection engineer and a competent staff to inspect and test all fire fighting equipment as well as other machinery and equipment. Follow his recommendations and replace such equipment as he may recommend. If you can't get a fire protection engineer, do it yourself—the Fire Department will help—but do it today!

2. *Employees Will Help—Their Jobs Are At Stake*

Your employees don't want a fire any more than you do. Sit down with them and discuss this problem. They likely can tell you of lots of fire hazards. Probably careless practices have developed. Review every operation from that angle. Correct these practices.

3. *Guard Aginst Fires 52 Weeks a Year*

Carry through with weekly inspections and written reports and have frequent drills. A fire prevention program throughout the year is a "must". Don't make it a one week out of 52 proposition.

4. *No Smoking—Mean It!*

Don't forget that the greatest cause of fires is the carelessly tossed cigarette or match. Enforce your no smoking rules. If need be, set up smoking rooms.

5. *Eliminate Electric Sparks and Short Circuits*

The second greatest cause of fires is misuse of electricity. Have your electrician inspect and replace all worn switches, temporary installations, motors and spark-producing equipment and wiring. Put guards around machinery. Remember that a spark can ignite certain dusts and all oily wastes. Replace defective wires and devices with approved, new equipment.

6. *Clean-Up—Keep Clean*

Clean, orderly and tidy plants have less fires. When they do occur they are more readily controlled. Remove oily rags and waste daily. Limit excelsior and other wrapping materials to a one-day supply. Keep the rest in the storehouse. Remove empty crates and cartons daily. Mark out aisles with paint and prohibit storage therein. Pack all supplies neatly.

7. *Blocked Fire Aisles and Exits Can Get You Into Real Trouble*

Have all exits plainly marked. Make sure your employees know where they are. Don't clutter up aisles with merchandise, waste or other materials. Make a real point of this. Prohibit blocking up fire exits with packing cases, stock, etc. This can get you into real trouble.

8. *Fire Walls—Watch Hazards in Storeroom*

Block off extra hazardous operations and storage rooms for inflammable materials with fire walls and doors to localize any fire which may occur. Remember bad fires frequently start in storerooms.

9. *Heating Plant—Check-Up*

Make certain your heating plant is thoroughly checked before cold weather with particular attention to cleaning chimneys and flues. Replace worn parts as soon as possible.

10. *Machinery—Report All Unusual Behavior of Machinery*

Make it a standing rule that machinery acting in an unusual manner be shut down immediately and the condition reported it may save the machinery from serious breakdown as well as reducing fire hazard.

From Commerce and Industry Association of New York, Inc.

Installation in Lamar Creamery, Paris, Texas

Every-thing Stainless Steel Except the Motor

Again Steriline presents the dairy industries with a brilliant new achievement . . . an ALL-stainless steel storage tank . . . beautiful to look at . . . and a pleasure to own. The lustrous gleaming attractiveness of Steriline Deluxe Tanks marks a new milestone in dairy plant progress. Entire interiors and exteriors are made of polished stainless steel. And ALL the outstanding features of the popular standard Steriline Storage Tanks are incorporated in these deluxe models, made in capacities of from 1,000 to 6,000 gallons. Note the handsome yet simplified motor mounting, step, and protecting guard rail; the streamlined manhole door; inlet assembly; sight glass . . . just a few of the scores of features found only in Steriline. Compare Steriline Storage Tanks point for point. Add up their many superiorities . . . and you will want Steriline in YOUR plant. Write for illustrated brochure.

Dairy Equipment Division **STEEL AND TUBE PRODUCTS CO.**
4300 N. PORT WASHINGTON ROAD • MILWAUKEE, WISCONSIN

LIFETIME EQUIPMENT FOR A LIFETIME OF GOOD SERVICE

PAINT: CHAMPION *of* QUALITY

Good Paint Is a Stout Friend of Both the Producer and the Dealer — Properly Applied It Can do Much to Promote Sanitation and Quality

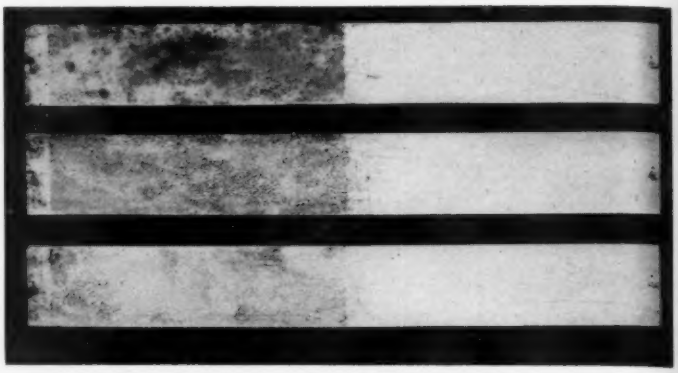
WHITE PAINT on both inside and outside of dairy barns aids the progressive farmer to produce purer milk at lower cost. The use of white paint reflects the meticulous care necessary in the production of one of our most vital foods.

The 150-cow barn shown here is owned and operated by one of the large distributors in the New York milk-shed. This well-constructed building is maintained in as sound condition as a model home. Durable white paint for the exterior was a happy choice—and also a scientifically sound one. Its striking beauty blends harmoniously with all the seasonal colors of the surroundings. It aids economical maintenance, as it permits easy inspection and readily reveals the state of repair of the structure.

White paint on the barn provides, also, more summer comfort for animals within—thus increasing their productivity. As we are cooler in summer in white clothes, so are white barns cooler—they reflect more of the sun's rays than do other colors. White-painted wood surfaces in the summer sun, in a typical test, were 19 deg. F. cooler than red and 27 deg. F. cooler than black.

White exterior paints for dairy barns—and for other farm structures—have the same economical long life and enduring whiteness as first-quality house paints. In addition, however, they are non-toxic to those farm animals which sometimes include painted surfaces in their diet. These features are obtained in modern paints containing a balanced combination of zinc sulfide or titanium dioxide, zinc oxide and selected extender pigments in a linseed oil vehicle. Such products are made by many paint manufacturers.

In such a balanced pigment combination, zinc sulfide and titanium dioxide provide brilliant whiteness and intense hiding power; selected extenders furnish a more desirable surface for repainting; zinc oxide imparts a number of important physical and chemical properties which cause it to be known as the backbone of outside paint.



These panels were exposed 189 days in a mold test cabinet. The three different paints on the right half contain no zinc oxide; they are discolored by fungus. The same paints fortified with zinc oxide are on the left half; they have successfully combated mold growth.

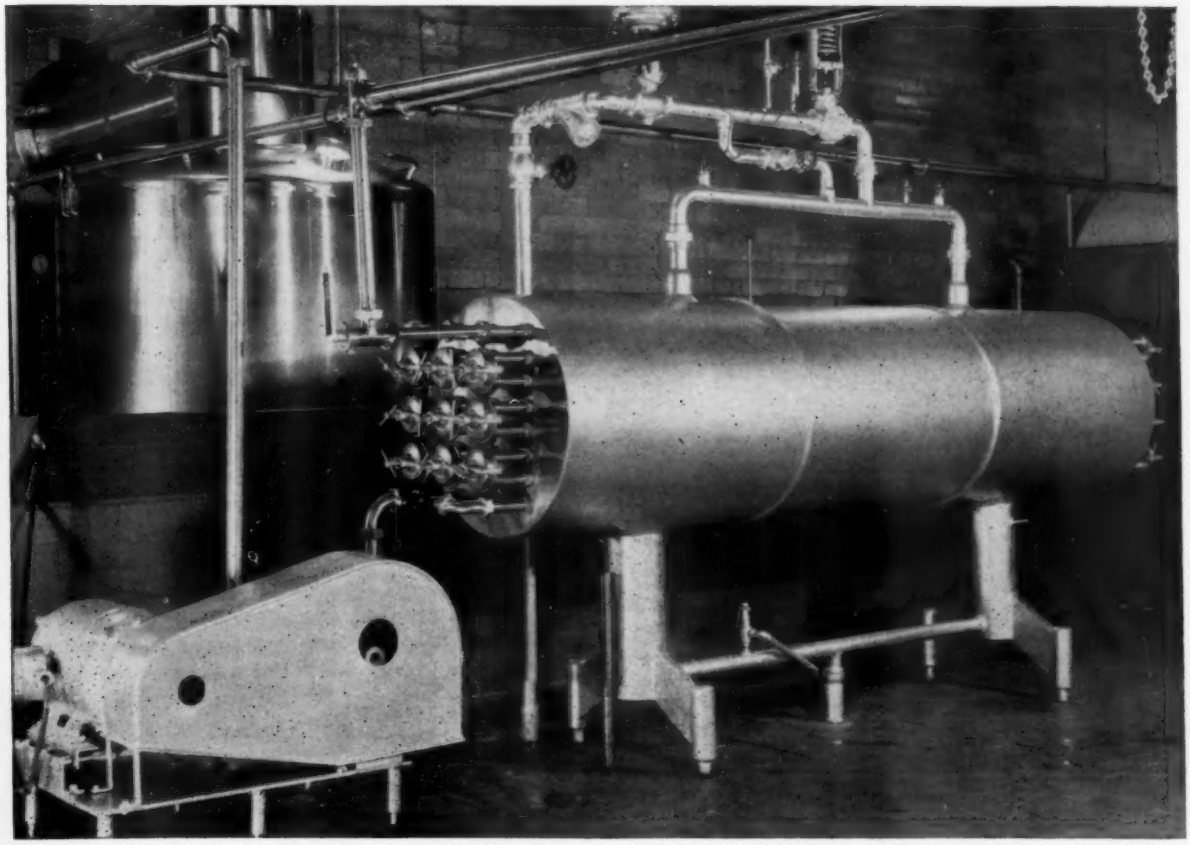
Zinc oxide, which comprises about one-third of the pigment portion of first-quality white exterior paints, contributes self-cleansing properties, so that films maintain their whiteness throughout their longer life. This it does by a "windshield-wiper effect" whereby it prevents clinging dirt from accumulating on the weathering paint film. At the same time, it improves the durability by controlling the rate of chalking. In addition, it is not discolored by barnyard fumes. And very important here is the fact that zinc oxide, alone of all white pigments, combats discoloration of the film by mildew.

Every effort, also is made to maintain the barn *interior* in a sanitary, healthful and efficient condition, for this is essential for production of highest-quality milk. After all, a

(Please turn to Page 55)

Special white enamels on dairy barn interiors aid in producing purer milk at lower costs. Not only do white surfaces "show up" the dirty spots but they also have a happy effect on workmen in developing a "sanitation consciousness." Barn cleanliness is one of the first steps in quality control.

For processing America's Finest Food



. . In America's Finest Processing Plants

▲ CHESTER ▲

STE-VAC

HEATERS

The above photograph shows an SV-20 STE-VAC HEATER
This Ste-Vac Heater is preheating 20,000 pounds per hour of milk from 40° to 190° ahead of the vacuum pan shown in the background. The milk supply is provided by the pump shown mounted in front of the heater. This heating is accomplished efficiently and without "burn on." The operator and plant manager are well pleased with this installation.

. . . are proving to be the perfect answer to all types of heating problems. "BURN ON" is eliminated. Cleaning costs are cut. Preheating temperatures can be increased, thus increasing capacity of primary equipment. Product quality is enhanced.

These heaters are designed and constructed to meet the highest sanitary standards. All product contact surfaces are polished stainless steel and heaters are now available with stainless steel heads and jackets as well. The simple, easily handled return cups and clamps are both interchangeable for easy disassembly. A simple, single use paper gasket provides the most sanitary type milk seal known.

Capacities from 4,000 to 40,000 lbs./hr. Full specifications on request.

Designers and Manufacturers of Milk Handling Equipment Since 1899

CHESTER DAIRY SUPPLY CO.

5TH AND TILGHMAN STREETS **CHESTER, PA.**

THERE'S PROFIT IN MILK BARS

Milk Bars Will Come and Go But the Good Ones Will Stay to Make Money, Says O. H. Glazier, in this Examination of the Industry's Newest Baby

Orman H. Glazier is a Milk Inspector with the Hartford, Connecticut, Health Department. He comes to the dairy industry from the University of Massachusetts where he recently completed his undergraduate work in dairy science. A boyhood spent working the huge evaporator that made his father's name synonomous with excellence in maple syrup provided his initiation into the food industry. His venture into the milk bar field is supported by practical experience in operation. Like a good tactician, however, he has left the avenue of retreat open. If the brickbats come too thick and fast he can willingly retire to the picturesque wilderness known as Rattle Snake Gutter that adjoins the old homestead in Leverett, Massachusetts.

●

DURING the past few years there has been a tremendous increase in the demand for ice cream. This demand has been met, in part, by a proportional increase in the number of road-side ice cream stands. Some of these stands will meet the test of time and prove to be a sound investment, others will fold up after a few seasons. Why? What are the factors that determine whether a business will survive or perish?

A study of road-side ice cream stands will show five major considerations that are primarily responsible for the success or failure of this type of enterprise. (1) Who is best fitted to enter the retail ice cream stand business?, (2) What equipment is needed?, (3) Where should the stand be located?, (4) What type of personnel is needed?, (5) What should be sold?

As for the question of who is best fitted for entering the business there can be but little doubt. The small milk dealer who is locally known and has a good reputation is in the best position to enter the business of retailing ice cream. He already has the good will of the townspeople as well as a good source of raw materials. Most of the equipment needed for making mixes he already has. Ice cream will serve as a profitable outlet for his surplus milk during the spring flush and help balance up his business. It is, of course, an established fact that the most profitable method of carrying on the operation of a retail stand is to make one's own ice cream. However, even this is not absolutely essential or even advisable under some conditions. A few seasons back the author managed a stand and bought all the ice cream from a well known manufacturer, as did all the nearest competitors. Many very small places buy a ready made base mix to which the desired flavor and fruits may be added and then the mix is frozen by a counter freezer. Nevertheless, if a stand is set up to handle any volume to speak of, it is wise for them to make their own ice cream because they can make it cheaper than they can buy it and also make a better quality than the run of the mill commercial product.

One point should be stressed; no one should enter the business without sufficient capital. This is not a business to enter on a shoestring, it is not a highly speculative, get rich quick affair. It takes one or two years to really get rolling. It takes time to get folks in the habit of dropping in. It is difficult to do more than break even the first season. Of course the amount of capital needed to be considered sufficient will depend entirely upon the size of the business one has in mind. Nevertheless, a good rule to follow is to have enough to pay for the stand, the equipment, and at least two month's stock and operating expenses. In other words, a person should not enter the business operating on the margin and then plan to pay for the equipment with the future profits.

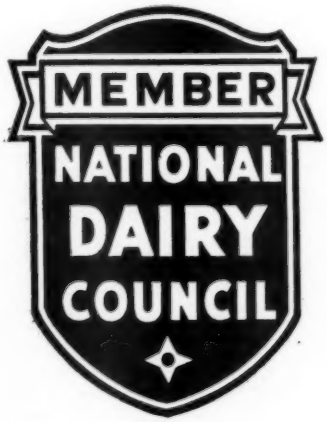
Location Important

The question of location is somewhat debatable. The factors which make a location good or poor are, for the most part, raised by and depend upon each individual situation. However, there are a few points generally agreed upon by retail operators as being fairly well fixed. The location should be such as to allow for plenty of parking space. No one wants to go through a mass of cars to get Junior an ice cream cone. The location should have a pleasant background for customers to gaze at while eating their ice cream. Nice appearing cattle grazing in a pasture alongside of a stream would be ideal. Inasmuch as over an estimated 75 per cent of the business is of a local repeat nature, the stand should be located on the edge of the residential area rather than on a main traffic artery. Folks traveling on a four-lane speedway are usually going somewhere in a hurry and don't care to stop their cars which are traveling 50 m.p.h. merely for some ice cream.

A question may arise in your minds concerning the success of the nationally known stands which are usually on main routes. The answer is that travel-weary people stop at those stands to get washed and to sit down and eat a full meal, oftentimes with ice cream merely for dessert. Usually such people wouldn't stop at a drive-in ice cream stand. However, there are exceptions to this rule. If there happens to be an unusually attractive background or something of great interest near the stand, folks in fast traveling cars will want to slow down or stop to take it all in and as an afterthought

Plenty of parking space is a must among Milk Bar facilities. This one, situated on a heavily traveled Vermont highway, is equipped to handle a good volume of business. Incidentally, this one gets the business too.

ETERNAL VIGILANCE



When this Plaque hangs in your office

. . . it signifies your active support in a proven program to hold and expand the market for all dairy foods.

How to Become A Member

Simply write (or wire or phone) to the National Dairy Council, 111 North Canal St., Chicago 6, and an application blank together with complete details will be sent you immediately.

is the job of the National Dairy Council

This job is the constant building of *knowledge and belief* in the incomparable food values of milk, butter, cheese, and ice cream, on the part of the consuming public.

On top of its job every day in the year (and for more than 28 years) the National Dairy Council is guarding the interests of the entire Dairy Industry by promoting the increased use of dairy foods.

Establishing *belief* in the nutritive facts about dairy products can be achieved only by the *leaders* who can speak with authority—the nation's physicians, dentists, nutritionists, nurses, home economists, and teachers. To *accomplish this task* the National Dairy Council has developed a comprehensive educational program which has gained the whole-hearted cooperation of the most influential governmental, professional, educational, and consumer leaders.

Today—and in the Future only the National Dairy Council is equipped to do this job.

There can be no let-up in this important work. New facts are being discovered, new research being developed, new progress planned, new materials produced . . . under the guidance of the National Dairy Council . . . to maintain and increase dairy products consumption in the days ahead.

A mark to shoot at: The Dairy Industry is rightfully entitled to holding a one-fourth share of the consumer's food dollar. The National Dairy Council is constantly moving toward this goal. The National Dairy Council deserves the active support of every element of the Dairy Industry. Are you a member?

A non-profit, educational organization promoting national health through a better understanding of dairy foods and their use.

National Dairy Council
111 North Canal Street
Chicago 6, Illinois

In recognition of the National Dairy Council and its important work for the entire Dairy Industry this space has been contributed by American Milk Review.

may buy some ice cream since they are already stopped. This happened to be the fortunate situation at the author's stand. Although the stand was on a four-lane speedway it sold to many out-of-town people. Just across the highway from it was a new airport where planes were continually moving about. Cars, especially those containing children (or men who still liked electric trains and airplanes, as most of us do), would often slow down and stop so that the passengers could watch the planes. It would be but a matter of minutes before some bright youngster would spot our ice cream stand and come dashing over after having put the "bee" on Dad for a quarter.

Planning An Efficient Layout

As for the equipment needed; the building itself is by far the most important item and deserves much thought. It should be designed correctly, in proper proportion and in harmony with its surroundings and thus create a general impression of an overall neatness. Some sort of landscaping in the form of shrubs or flower gardens would help create the desired impression.

The dipping cabinets should be two in number arranged at right angles to the front windows. Two cabinets are needed so that one may be maintained at about 10 deg. F. for the lower melting flavors like chocolate and fruit ice creams and one at 14 deg. F. for the higher melting plain ice creams. If vanilla and frozen pudding ice cream are kept in the same dipping cabinet the vanilla will often be too hard and the frozen pudding too soft for the most efficient dipping. Efficient dipping is absolutely necessary when lines are formed at all the windows as is usually the case on warm evenings. Paper cups and dishes are by far the bet adapted for a business such as this in that the problem of washing is completely eliminated and there is no loss from breakage. Furthermore loss from folks taking dishes out to their cars and not returning them is also eliminated when paper is used. Some health departments are going so far as to require complete paper service in this type of stand to eliminate the health danger from improperly washed dishes. However, there will be more or less paper dropped about the yard which should be picked up by one of the clerks during the slack period. It was found, that for the most part, customers would cooperate and use the waste containers.

Adequate ice cream storage space is needed alongside a tempering room, both of which should be located in the stand itself for the sake of convenience. The freezer should be of the larger batch type operating on an ammonia system. Other types can be used but this is probably the best suited for the average stand. Don't make the common mistake of buying too small a freezer and building too small storage rooms. After all it is hoped that the business will expand rather than contract and while construction is underway, it is by far the best time to make the proper allowances. Storage space for paper stock and various fountain toppings, cones, and syrups must be provided for. This storage should also be located in the stand for the value of convenience. No one wants to run outdoors, across the yard and up to the attic of the plant for a carton of paper cups during an evening rush. Everything pertaining to the ice cream stand should be located in the stand if at all feasible, of course the mix and the equipment for making the mix will be of necessity kept in the plant.

Soda Fountain Suggestions

No stand would be complete without a soda fountain and it is here that the larger profits lie. Soda fountains are made in a large variety of sizes and styles and it is therefore impossible to make any blanket recommendations. The principal point to be considered in buying a soda fountain is convenience which means get the size best fitted for the building. A fountain which is too large takes up valuable space and requires the clerks to make extra, time-consuming steps. Inasmuch as installation costs are rather high and repairs in addition to being costly and usually occur at a time when the rush is on; only the very best material and construction should be considered in buying a fountain. The same principal also applies to the various scoops and paddles which will be used. Buy the best obtainable and avoid delays due to repairs; the best has been none too good the last few years. Mixers for making milk shakes have been almost impossible to get for the past five years. There is a manufacturer who makes a conventional model with an overhead motor and a vertical beater. These have been selling second hand at well over the new price. Various styles have recently appeared on the market but none are as good as the older type due to defects in design. They are difficult to clean or they require too much room or are inconvenient for the operator to use. It is better to buy good used mixers of proper design than to buy new mixers of inferior design and construction.

Modern equipment, well maintained, gives that "second helping" look so necessary for a successful business. This is Seward's Milk Bar in Rutland, Vt., completely surrounded by green mountains and the tourist trade.

Ice cream for the retail cabinets is put up in either 2½ or 5 gallon containers of paper or metal. After trying both sizes and both types of construction the author decided that the 2½ gallon paper container was by far the best fitted for a retail stand. The smaller size eliminates the extreme reaching required by the five gallon container when it is nearly empty. This is especially important if girls are employed. In trying to scoop ice cream for six or eight cones held in one hand, one or two scoops invariably fall off and general confusion results; all because someone has to crawl halfway into the cabinet to reach the bottom of a container. Ice cream is also often rubbed off the top edge of the large container by the clerk's sleeve makinng it necessary to change coats. Paper containers are preferred because there is no washing problem and no off-flavor which may result when metal containers are used. Paper containers are also lighter, easier to handle, and better appearing.

Don't Overlook the Details

Two other little items worthy of careful consideration are spoons and straws. Wooden spoons will of course be used for the sake of convenience but there are many types and grades of wooden spoons. Inasmuch as the actual cost per spoon is but a fraction of a cent, even for the best ones, and since only one spoon is served per customer, there is no excuse for using any but the best. It is a bit foolish to spend a lot of money on the appearance of the grounds, building, and other equipment in an attempt to impress customers favorably and then

serve them a hot fudge sundae with a spoon which looks more like a toothpick with one end flattened out. There are some excellent wooden spoons made. They have the same shape as teaspoons with handles of various lengths which highly recommend themselves. Long handled spoons must be served with ice cream sodas. Paper spoons are out of the question because the handles lack strength for any but the softer ice creams.

Straws like spoons are a small, inexpensive item but they, too, are important. Buy only straws which are individually wrapped. Not only is this good sanitary practice especially in a drive-in-stand where there is certain to be some dust in the air. It also leaves a good impression with the customer. It is the small items, most apt to be neglected by the management, which often influence the customer most. This all brings up to the problem of personnel which really is a big one in this day of inflated wages.

The Human Element

Personnel must be chosen with great care by a process of elimination. If you need six clerks and there are six people you can find to work, then the problem is easy; you don't eliminate anyone. Hire them all and may luck be with you because you will probably need it. However, in normal times when there are plenty of applicants you will have to eliminate some. You must decide whether you want young men or young women or both working in your stand. You must decide what age group you want and what personal qualifications you will require. Personal qualifications are of utmost importance. It has been the author's experience that older boys between the ages of 18-25 are best suited for the dairy bar type of stand. Boys seem to be a bit faster, understand how to do things without being told all the smaller details, and don't get confused as easily in making change or filling complicated orders during a rush. Personality is very important; a quick smile and a friendly greeting is perhaps as essential to the success of a retail ice cream stand as is a quality product. Once have hired a crew which meets your qualifications fairly well, the manager would do well to treat them in such a way as to command their respect and their friendship. Don't play favorites, be just in assigning work, especially the little distasteful jobs and pay them a fair wage. Teach them the fundamentals of good salesmanship and have them prepared to answer the usual questions in an intelligent friendly manner.

You'll Have To Say "No"

A stand will not be open more than a couple of days before a dozen or so salesmen will stop in and make attractive offers on such items as potato chips, candy, and even jars of honey. And it is here that the manager must decide once and for all whether he is going to operate an ice cream bar or a combination drug store and restaurant with a little ice cream on the side. In the author's opinion there is no place in a dairy bar for hamburgs, coca cola and coffee. Cartons of potato chips and candies litter up the place and distract from your principal items. Oftentimes the sale of a nickel bottle of soda would have been a sale of an ice cream milk shake if you had no soda. A grill is a messy piece of equipment and will smell the place up sooner or later with smoke and grease. Limit your sales to ice cream and soda bar products such as sundaes and milk drinks and you won't go wrong. Sell only top quality products just a little better than standard commercial brands; give large servings and charge a fair price. A large serving of a high quality product will necessitate a slightly higher price but the impression of quality and generosity will stay with the customer longer than will the price and he will go away satisfied. High quality products sold in a friendly manner in pleasant surroundings for a fair price will be the best possible insurance for the success of any retail ice cream business.

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THE DEMAND SIDE . . . *of* THE MILK MARKET . . .

By LELAND SPENCER, *Professor of Marketing*

Department of Agricultural Economics, New York State College of Agriculture, Cornell University

THE LAST SIX OR SEVEN years have been a period of exceptional prosperity for the milk industry. The demand for milk and other dairy products has been strong. In the main there have been markets at good prices for all the farmers could produce or the dealers supply. Uncertainty about the future pertains mainly to the demand. It is a good time to review the changes in consumption and other demand factors for milk and dairy products that have occurred during this period, and to consider some of the factors that will influence the future demand for these products.

Exports and Military Use Important

One of the most important developments on the demand side of the dairy markets during recent years was the purchase of enormous quantities of dairy products by the U. S. government. These purchases were made both for military use and for shipment to allied countries.

For many years prior to World War II, our exports of dairy products were smaller than our imports, but in most years neither exceeded one per cent of our own production. Government purchases for military use were negligible in amount. During the years 1943, 1944 and 1945 however, government purchases of dairy products for export and military use were equivalent to nearly one-sixth of our total milk production.

Government purchases were of the greatest importance with reference to dried whole milk, non-fat dried milk solids, evaporated milk, cheese and butter. Substantial quantities of fluid milk and ice cream were supplied to army camps, naval stations, military hospitals, etc., but these sales made up only a small percentage of the total output of these products.

In 1946, government purchases of dairy products were down to less than 5 per cent of total milk production. They will be still smaller in 1947. So far this sharp curtailment of government buying has not affected dairy markets seriously, except as to non-fat solids, where the Department of Agriculture has stepped in to establish a support price.

The outlook for the next several years is that our exports of dairy products will dwindle to approximately the pre-war level, while our imports increase moderately. Our government probably will not purchase dairy products on a large scale except for the purpose of sustaining prices when they fall below reasonable levels.

Civilian Consumption of Dairy Products in U. S.

During the war the demand for dairy products by the civilian population was stimulated by increasing incomes and purchasing power and by shortages of other foods. The actual consumption of these products was restricted however by rationing and by lack of adequate supplies in the stores. The number of people in military service exceeded the national increase of population, with the result that the civilian population in 1945 was 1.5 per cent lower than in 1939.

The net effect of these changes was that total civilian consumption of dairy products in terms of milk equivalent was about 5 per cent less in 1945 than in 1939. With the return of young men and women from military service, and with a sharp increase in the birth rate, civilian population in 1946 was 5.5 per cent greater than in 1939, and is now about 8 per cent greater than in 1939. Total consumption of dairy products by civilians in 1947 is estimated at 6.3 per cent greater than in 1939—somewhat less than the increase in population.

On a per capita basis, civilian consumption of all dairy products in terms of milk equivalent was slightly lower in 1946 and will also be lower in 1947 than in 1939. This is true in spite of the fact that per capita consumption of all major products except butter is substantially higher than the pre-war rates. Per capita consumption of butter, which made up two-fifths of the total milk equivalent of dairy products used in 1939 is running nearly one-third lower than the pre-war rate.

Preliminary estimates for 1947 show the following increases in per capita consumption of other dairy products since 1939:

Fluid milk and cream	up 17 per cent
Canned milk	up 13 " "
Ice cream	up 97 " "
Cheese	up 17 " "

In contrast with the sharp decline in butter consumption, the use of oleomargarine has increased 78 per cent.

It should be noted also that the consumption rates for some products are likely to be lower in 1947 than in 1946. Per capita consumption of fluid milk and cream was highest in 1945 and has declined moderately in the last two years. The consumption of ice cream is running 12-15 per cent lower this year than last but is still far above the pre-war rate. The per capita consumption of canned milk and cheese promises to be greater in 1947 than ever before.

One significant fact about these consumption trends for dairy products in recent years is that the consumption of non-fat milk solids has made a much better showing than the consumption of fat. While the civilian consumption of milk fat on a per capita basis decreased slightly between 1939 and 1945, the consumption of non-fat solids gained nearly one-fourth in the same period. We have increased our use of fluid milk and other products containing the solids-not-fat while cutting down on butter and cream.

Fluid Milk Sales in New York Cities

Having surveyed the consumption of dairy products on a national basis, let us now turn our attention to markets nearer home, and to the dairy product that is of foremost importance in this region—fluid milk. Since the beginning of World War II fluid milk sales in Buffalo, Rochester and New York have increased greatly. Buffalo had the most striking increase between 1940 and 1943. Since 1943 however the trends for the three markets have been more alike.

The marked upward trends in fluid milk sales in these three markets are due in part to gains in population as well as to increased use of milk per capita. The Buffalo-Niagara Marketing Area is characterized by a predominance of heavy industry (steel, chemicals, etc.) as well as aircraft manufacture.

It had a tremendous boom during the war. Rochester and New York had some war industry of course but much less proportionately than did Buffalo.

Total sales of fluid milk in the Buffalo-Niagara market gained more than 50 per cent since 1940, while Rochester sales gained about 35 per cent and New York sales about 25 per cent.

One of the most significant facts is that in all three markets the sales of fluid milk reached the highest level in the early part of 1946 and have since declined, moderately. Probably the main reason for this declining trend since the fore part of 1946 is the striking increase in prices charged consumers for milk. After being artificially depressed by price ceilings and subsidy payments during the war, retail milk prices sprinted upward in 1946 and 1947. In New York City the price of standard milk at stores was raised from 14c to 15c a quart in April, 1946. In June all three markets went up 1c; in July 2c and in October another cent. Thus within a few months the retail cost of milk to consumers went up 25 per cent in Rochester and Buffalo and 35 per cent in New York City.

Per Capita Consumption of Milk and Cream in the New York-New Jersey Metropolitan Area

The New York-New Jersey Metropolitan Area not only is the largest center of population in the United States but also has the distinction of being the only market in the country for which we have reliable records of consumption of milk and cream over a long period. These records are based mainly upon reports of quantities of milk and cream received in the market by rail and truck, which go back to 1890 or a little earlier. Some adjustments have to be made for milk produced in the area and for year-to-year changes in storage holdings of cream.

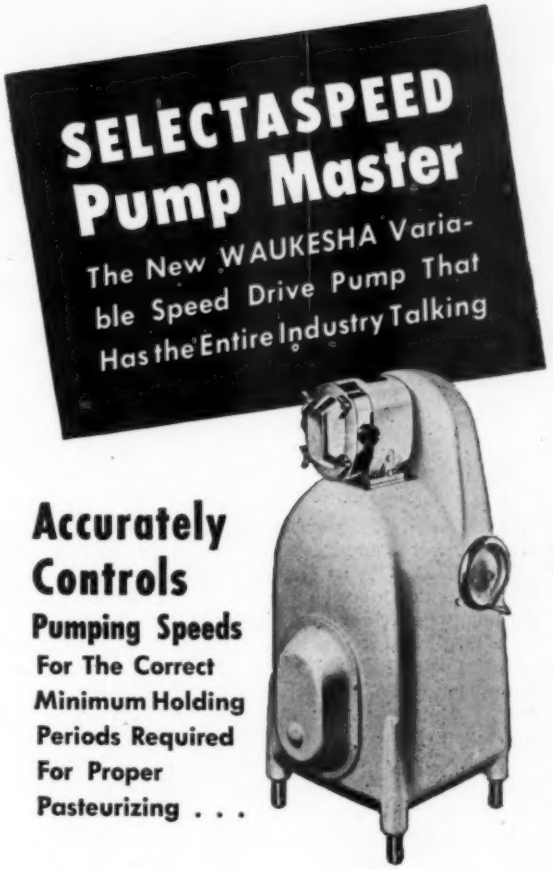
In order to compute rates of consumption per capita we have to take population figures from the federal census and prepare estimates for the years between. During the war, many young people left for military service and were removed from the consuming population of their home cities. Many other people migrated for work in war plants and for other reasons. Hence our population estimates for the war years are less reliable than for other periods. However the Census Bureau has just released a carefully prepared estimate of population in the New York-New Jersey Metropolitan Area for April 1 of this year. Earlier estimates, based on the issuance of ration books were published for 1942 and 1943. Thus the estimates of consuming population in this area for the years 1941-1945, should not involve a significant amount of error.

Limiting our attention again to the period since 1939, we can summarize the important changes as follows:

	Per cent change 1939-1946
Population	up 4.8 per cent
Total Consumption:	
Milk	up 3.7 " "
Cream	off 25.0 " "
Milk and Cream	up 7.8 " "
Per Capita Consumption:	
Milk	up 18.4 " "
Cream	off 29.7 " "
Milk and Cream	up 3.5 " "

Milk receipts in this market area during the first six months of 1947 were about one per cent less than those for the first half of 1946. Cream receipts were down 9 per cent after allowing for change in storage holdings. With population increasing and receipts going down, it is evident that per capita consumption of milk and cream in the New York-New Jersey Metropolitan Area will be considerably lower in 1947 than in

(Please Turn to Page 52)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VERMONT VENTURE

Roland Q. Seward's Milk Plant and Dairy Bar Have Become a Symbol of Progress in the Green Mountain State

By NORMAN MYRICK

Roland Q. Seward, President

THERE ARE more cows in Vermont than there are people and there are more rocks in Vermont than there are cows. Nature has not been easy on Vermonters. From Brattleboro to St. Johnsbury, dominated by the superb grandeur of "les monts vert", a hardy breed of New Englanders have wrung a precarious living from the land. As often happens where an uncompromising environment levies a heavy tax on errors, adherence to the tried and tested becomes a part of the scheme for survival. Your Vermonter is apt to be on the conservative side; a little suspicious of change, pretty well aware of the real values of existence, and possessed of a character that bears more than a little similarity to the bed rock of his native state.

Up in Rutland under the shadow of Pico and Killington there is a young man who has veered away from the well trodden paths and taken a bold highway of his own. If you drive through Rutland on the way North you will see the sparkling new brick and glass combination milk plant-dairy bar owned by Roland Q. Seward. There were those who shook their heads when they heard about the idea. It was new. There were a lot of strange shiny gadgets. There wasn't another establishment like it on which to base a judgement. "Well, I duno . . ." But Seward knew and so did Paul VanZandt and so did Frank Adams.

They knew and they built a plant that will set your dairyman's soul on fire if you happen to drop in on them.

Paul VanZandt, Manager

It all started a few years ago when the East Wallingford Creamery, owned by David Butterick of Arlington, Massachusetts closed down. East Wallingford is Mr. Seward's home town and for a chap with a little capital and a lot of "git up and git" as folks say up in the hills, the creamery had all the ear marks of an opportunity. Seward put through a deal, bought the creamery, got himself a customer or two in Boston and was in the dairy business in a land where dairying runs in the blood.

But there were other opportunities. One of them was in Rutland a few miles up the road. Rutland isn't a big town, 17,000 people, but they drink milk and they eat ice cream. There were milk routes to be bought if a fellow tried hard enough and there was no real modern milk plant in the area. Some folks think about a deal like that, some folks act. Mr. Seward did both.

It wasn't an easy thing to raise the money, to overcome the resistance to a new venture. But if Vermonters are conservative they are also tenacious and Mr. Seward is a Vermonter. He got the money.

The new plant, designed by Ernest Erickson, a local architect, and John Stabley of Creamery Package Manufacturing Company, is a well planned, well built structure. Brick and glass blocks predominate in the building in accordance with current thought on milk plant construction. The grounds provide plenty of space for parking near the milk bar while adequate provision has been made for handling milk trucks in the processing section of the plant.

The interior of the plant is lined with glazed tile. Excellent natural lighting is obtained through the use of the glass block panels. Mop boards of glazed tile are curved to form a tangent with the floor and wall, a characteristic feature that adds to plant efficiency by reducing the maintenance operation.

Wide use is made of ultra-violet germicidal lamps both in the plant and in the milk bar. Lamps are installed so that the rays are reflected against the ceiling in areas where air sanitation is their primary purpose, in other cases, such as the bottling operation, a lamp is so placed that every bottle enroute to the filler is exposed to the rays just before it is filled.

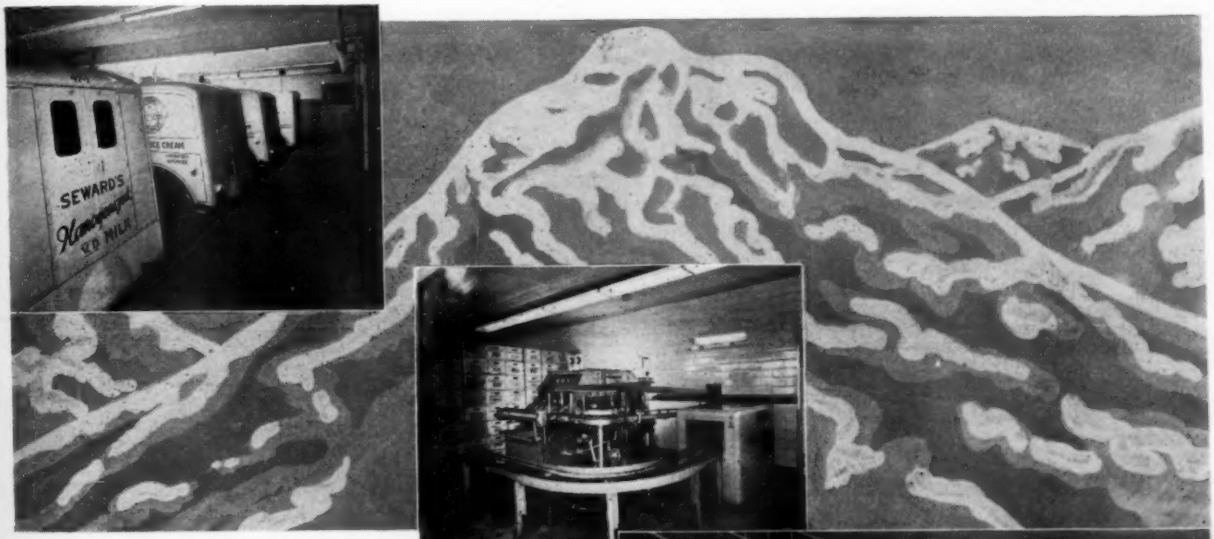
New fast equipment is used throughout the

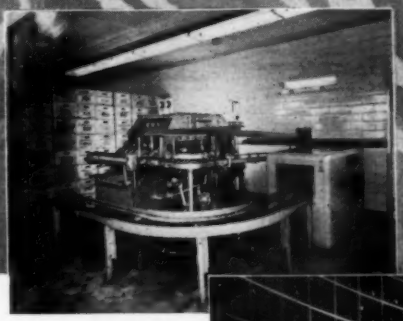
Frank A. Davis, Comptroller

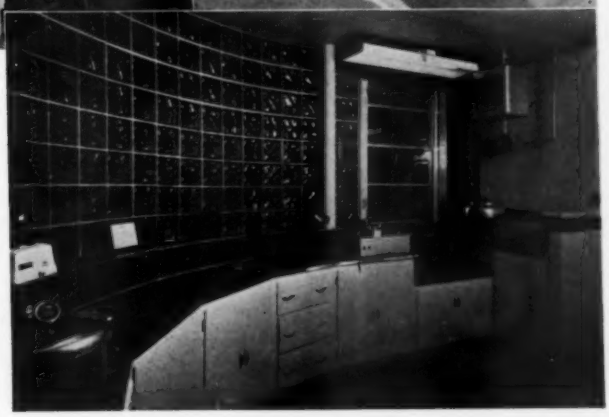
(Please Turn to Page 54)

Located on Route 7 in the heart of the Green Mountains, Seward's Milk Plant and Dairy Bar are in a position to take advantage of a healthy "tourist" trade.

Trucks and bottle washer, embodying the latest advantages of design, are characteristic of the "Vermont Venture".







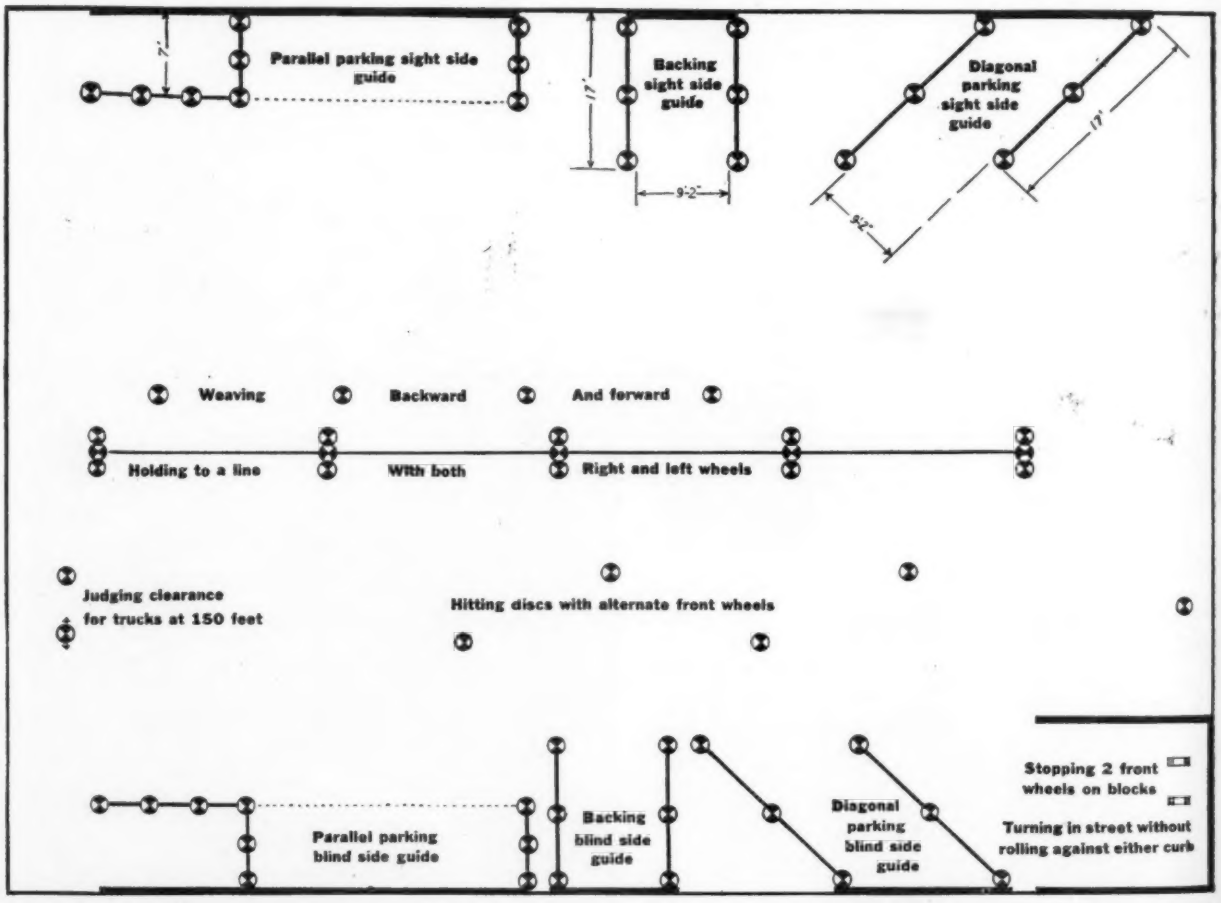
Shining steel in the processing room (left) and diffused light through glass blocks in the up-to-the-minute laboratory (right) are features of the new plant.

DRIVER TRAINING PAYS OFF

The Sequel to Robert I. Gayley's Story of the Supplee-Wills-Jones Safe Driving Program Is Found in the Detailed Plan Presented Here

ONE OF THE outstanding reasons for the success of the Supplee-Wills-Jones Driver Training Program has been the meticulous attention given to testing. Some idea of the comprehensive nature of the safe driving course may be gleaned from the Traffic Test Score Sheet, Traffic Test Check Sheet, Master Score Sheet, and Skill Driving Test that are reproduced below. A study of these tests will show how this dynamic program operates. Notice particularly how the little everyday things are emphasized. Notice how exhaustive is the breakdown of milk truck operation. The logic is inescapable. The operation of a milk truck, like most other mechanical procedures, is a combination of a great many small skills. Alone they are relatively unimportant, brought together in a carefully prepared scheme they are basis of a remarkable safety achievement.

The Skill Driving Test is used in connection with the Training Field. If examined in connection with the diagram of the field its significance becomes apparent. Here, as in the other tests, the importance attached to detail and to "doing the job right" is amply demonstrated by the procedure.



This testing field is a training ground for Supplee-Wills-Jones drivers. Used both as a training ground and testing area, the skills gained here and the attitudes developed are major factors in the Company's safety record. Although the hazards provided on the field are no more than the hazards encountered in the course of driving a milk truck through city streets they are rather terrifying when they are collected in one field.

SKILL DRIVING TEST

1. What would you check on your truck before leaving for the day's run?

(Check only items missed)

Tires Brakes Horn Lights Mirrors Gas Oil Water Turn Signals (if installed) Windshield Wiper

6 State Motor Code Questions.

(Check only questions unanswered)

1	4
2	5
3	6

2. Parallel Parking—Left Side Guide

This can be done with one turn of the wheel.

Count 1 for every restart after entering parking space, 5 for every time stanchion is hit, 1 for every time curb is hit and 1 for each inch or fraction therof over 12 inch total left wheels are from curb when driver says he is parked.

Restart	*Stanchions Hit*	*Curb Hit*	*Distance over 12 inches Wheels Are From Curb*

3. Backing into Curb—Left Side Guide

Guide on left side stanchions and greatest width of vehicle at two points should not be over 1 inch from stanchions. Rear of vehicle should be within 2 inches of face of curb.

Count 1 for each inch or fraction thereof over 2 inches rear of vehicle is from face of curb. Count 1 for hitting curb, 5 for hitting satnchions, 1 for each restart and 1 for each inch or fraction thereof and 1 inch at two extreme points of vehicle from guiding stanchions.

Distance From Curb	*Curb Hit*	*Stanchion Hit*	*Restart*	*Distance From Side Stanchion*

4. Front Diagonal Parking—Guide Left Side

Guide is on left side and greatest width of vehicle at two extreme width points should be within 1 inch of guiding stanchions. Front of vehicle should be within 2 inches of face of curb.

Count 1 for hitting curb, 5 for hitting stanchions, 1 for each restart and 1 for each inch or fraction thereof over 1 inch that two extreme points of vehicle are from left side stanchions. 1 for each inch or fraction thereof over 2 inches front of vehicle is away from face of curb.

Distance From Curb	*Curb Hit*	*Stanchion Hit*	*Restart*	*Distance From Side Stanchion*

5. Forward Weaving

This can be done without wheels crossing side clearance markers.

Count 1 for crossing side markers, 1 for each restart and 5 for every stanchion hit.

Crossed Side Markers	*Restart*	*Stanchion Hit*

6. Backward Weaving

Rules same as No. 5

Crossed Side Markers	*Restart*	*Stanchion Hit*

7. Forward on Straight Line—Left front wheel on line

Contestant will start at end of line and proceed down line keeping wheel on line and stopping with extreme front of vehicle within 2 inches of standards on opposite end. Lane is divided into 4 sections.

Count 1 for each section in which wheel leaves line, 1 for each inch or fraction thereof over 2 inches front of vehicle is from stanchions when truck is stopped. Count 1 for each restart and count 25 for hitting stanchions.

Stanchion Hit	*Off Line*	*Restart*	*Distance From Stanchion*

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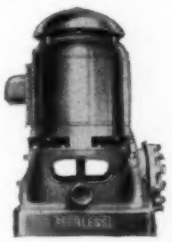

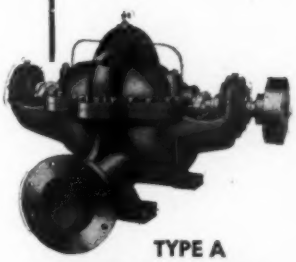

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General Specifications: *Capacities*, from 50 to 70,000 g.p.m. *Heads*, 15 to 300 feet; *Sizes*, 2" to 42" discharge; *Drives*, electric and other types from 1 to 1000 h.p.; *Type*, single stage, double suction, split-case, ball bearing. REQUEST DESCRIPTIVE BULLETIN.

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TRAFFIC TEST SCORE SHEET

Name ..... Weather Conditions .....

Date ..... Time of Day.....

Truck ..... Familiar with Truck.....

Score ..... Attitude .....

1. Truck Inspection	A	B	C	D	E	F	G	H	I	J	K			
2. Checking driver	25	10	2	3	5									
3. Starting engine	11	9	56	53	59	4								
4. Starts test	11	52	47	58	41	1	57	18						
5. Proceeds west on Merion Avenue to 50th Street	27	64	65	48	33	32	28							
6. Left turn on 50th Street to Lancaster Avenue	65	12	14	24	32	29	33	44						
7. Right turn on Lancaster Avenue to 59th Street	65	12	14	24	63	60	44	32	28	60				
8. Left turn on 59th Street	62	12	14	24	44									
9. Park on down grade	20	49	50	55	7	68	51							
10. Starting engine	9	56	53	59	47	64	67							
11. Proceeds to bottom for "U" turn	42	32	47	65	64	46	33	24	60					
12. Park on up grade	20	49	7	50	55	68	52	61	62					
13. Starting engine	9	56	53	59	47	64	58	57	65	1	44	28	32	33
14. Left turn, Oxford Street	65	12	14	24	63	41	44	48	29	32	65	33		
15. Right turn, Oxford Street to 63rd Street	12	14	24	29	32	60	65							
16. Right turn, 63rd Street to Columbia Avenue	12	14	24	65	44	63	28	32	33					
17. Left turn, Columbia Avenue to 60th Street	12	14	24	65	29	32	33							
18. Right turn, 60th Street to Lancaster Avenue	12	14	24	66	41	28	32	44	60					
19. Left turn, Lancaster Avenue to 59th Street	12	14	24	66	29	32	60							
20. Right turn, 59th Street to Upland Way	12	14	24	66	63	28	32	33	44					
21. Left turn, Upland Way to 54th Street	12	14	24	66	44	63	28	32	60					
22. Left turn, 54th Street to Berks Street	12	14	24	66	41	29	32	33						
23. Right turn, Berks Street to 56th Street	12	14	24	41	44	48	65	29	32	33				
24. Right turn, 56th Street to Overbrook Avenue	12	14	24	65	28	32	33	44						
25. Left turn, Overbrook Avenue to 54th Street	12	14	24	65	63	29	32	33	44	60				
26. Right turn, 54th Street to City Avenue	12	14	24	65	63	44	41	29	32	60				
27. Right turn, City Avenue to Conshohocken Avenue	12	14	24	65	63	44	29	32	48	33				
28. Right turn, Conshohocken Avenue to Belmont Avenue	12	14	24	44	41	65	60	63	66	29	32	60	33	
29. Right turn, Belmont Avenue to Girard Avenue	12	14	24	65	63	41	29	32	65					
30. To Training Field														

Examiner.

On the Master Score Sheet 64 different items are listed. Each of these operations is given a number and a value in the scoring system. On the Traffic Test Score Sheet the operations that apply to a particular portion of the test are listed. For example No. 3, Starting the engine involves Item 11 (Depresses Clutch), Item 9 (Checks gears for neutral position), Item 56 (Turns on ignition switch), Item 53 Pushes starter button or pedal correctly), Item 59 (Releases starter as soon as motor catches), Item 4 (Allows motor to warm up). The total negative value of this portion of the test is 8. If the driver does them all incorrectly he gets a score of eight, if he does them all correctly he gets a score of zero.

The score for each phase of the Traffic Test is recorded and on completion the total is computed. A perfect score would be zero while 25 is a passing grade. The driver who does everything wrong can collect a tidy 547.

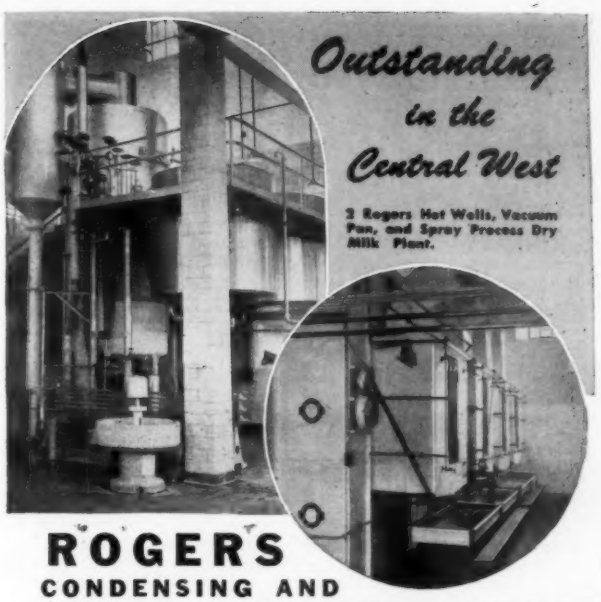
TRAFFIC TEST CHECK SHEET

(A part of the test is printed below)

1. Truck Inspection—19 points
   - (2) A—Gas
   - (2) B—Oil
   - (2) C—Water
   - (2 D—Horn
   - (2) E—Lights
   - (2) F—Signals (if installed)
   - (2) G—Brakes
   - (2) H—Tires
   - (1) I—Gear shift position
   - (1) J—Windshield wiper
   - (1) K—License tags
2. Checking Driver—7 points
   - (2) 25—Enters from curb side
   - (1) 10—Closes doors securely
   - (2) 2—Adjusts rear vision mirrors
   - (1) 3—Opens windows for ventilation
   - (1) 5—Assumes alert driving position
3. Starting Engine—8 points
   - (1) 11—Depresses clutch pedal
   - (1) 9—Checks gears for neutral position
   - (1) 56—Turns ignition switch
   - (1) 53—Pushes starting pedal or buttton correctly
   - (1) 59—Releases starter as soon as engine operates on own power
   - (3) 4—Allows motor to warm up
4. Starts Test—11 points
   - (1) 11—Depresses clutch pedal
   - (1) 52—Places gears in low
   - (2) 47—Checks traffic through rear vision mirror or window
   - (1) 58—Releases hand brake
   - (2) 41—Keeps eyes on road
   - (1) 1—Uses proper pressure on accelerator
   - (1) 57—Releases clutch properly—smooth start
5. Proceeds, West on Merion Avenue to 50th Street—15 points
   - (1) 27—Changes into 2nd gear
   - (1) 64—Selects correct gear
   - (1) 65—Maintains correct speed
   - (5) 48—Obeys traffic signs
   - (2) 33—Checks traffic
   - (2) 32—Gives proper turn signal at proper time
   - (3) 28—Gets into proper lane for left turn
6. Left turn on 50th Street to Lancaster Avenue—18 points
   - (1) 65—Maintains correct speed
   - (2) 12—Cuts corner
   - (1) 14—Cuts corner too wide
   - (2) 24—Moves into proper lane after turn

MASTER SCORE SHEET

(1) 1 Uses proper pressure on accelerator
(2) 2 Adjust rear view mirror
(1) 3 Adjust window
(3) 4 Allows motor to warm up
(1) 5 Assumes alert driving position
(1) 6 Maintains proper speed in low gear



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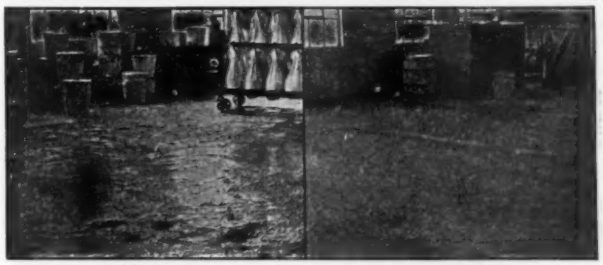

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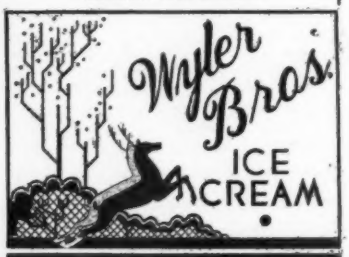

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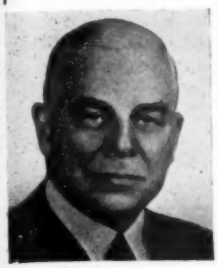
(5) 7 Stops truck smoothly
(1) 8 Operates truck smoothly
(1) 9 Checks gears for neutral position
(1) 10 Closes doors securely
(1) 11 Depresses clutch pedal
(2) 12 Cuts corner
(1) 14 Cuts corner too wide
(2) 18 Stalls engine
(2) 20 Observes all traffic and gives stop signal
(2) 24 Enters correct lane after turn
(2) 25 Enters from curb side
(1) 27 Gets into 2nd gear in proper time
(3) 28 Gets into proper lane for left turn
(3) 29 Gets into proper lane for right turn
(2) 32 Gives proper signal at proper distance
(2) 33 Checks traffic
(5) 34 Gives signal for left turn
(2) 38 Uses brake excessively
(1) 40 Shifts gears smoothly
(2) 41 Keeps eyes on road
(1) 42 Drives in correct lane
(2) 43 Gets out on curb side
(5) 44 Exercise caution at intersections
(1) 45 Moves into 2nd gear without clashing
(1) 46 Maneuvers more than necessary
(2) 47 Checks traffic through rear mirror
(5) 48 Obeys traffic signs
(2) 49 Pulls into proper position at curb
(2) 50 Cuts front wheels to curb
(2) 51 Puts gears in reverse
(1) 52 Place gearshift in low gear
(1) 53 Pushes starter button or pedal correctly
(1) 54 Puts gears in neutral
(1) 55 Sets hand brake
(1) 56 Turns on ignition switch
(1) 57 Releases clutch properly—smooth start
(1) 58 Releases hand brake
(1) 59 Releases starter as soon as motor catches
(5) 60 Tries to beat light
(1) 61 Rolls back on hill
(2) 62 Stalls on hill
(2) 63 Follows car ahead too closely
(1) 64 Selects correct gear
(1) 65 Uses correct speed
(1) 66 Keeps an even speed
(2) 67 Eases front wheel back away from curb
(1) 68 Turns off ignition switch
(2) A—gas
(2) B—Oil
(2) C—water
(2) D—Horn
(2) E—Lights
(2) F—Signals
(2) G—Brakes
(2) H—Tires
(1) I—Gear shift position
(1) J—Windshield wiper
(1) K—License tags

N. D. C. Is Our Business

By John W. Ladd

President, Cherry-Burrell Corp., Chicago



John W. Ladd

EVERY COMPANY engaged in the machinery and supply field recognizes the fact that a very definite relationship exists between their welfare and the National Dairy Council.

Our business is basically dependent upon the consumption of milk and dairy products. The National Dairy Council, which is non-profit in character, is wholly devoted to increasing consumption of milk and dairy products—through research and education and thus improve national health and well-being through sound nutrition, in which milk and dairy products play such vital parts.

In these days of intense competition among food groups for the consumers' food dollars, it demands that those of us in the dairy industry, particularly those in the machinery and supply group, consider all practical means available for us to improve our own business volume.

If the consumption of milk, butter, cheese and ice cream drops, we lose proportionately. If the consumption of dairy products gains, we too gain. The relationship is that simple and direct.

The National Dairy Council is an organization, serving the vast dairy field, whose program is devoted to building the increased consumption of milk, butter, cheese and ice cream. It works through doctors, dentists, nurses, dietitians, all the professional groups that are concerned in sound nutrition, and does its habit teaching through the nation's schools.

It builds habits that affect today's market and tomorrow's growth.

Obviously the National Dairy Council can only increase its educational effectiveness through greater financial support. It is doing for the industry, especially including the machinery and supply group, what the dairy industry cannot do for itself.

It offers us now a sound means of improving our own business today and tomorrow.

So I suggest most earnestly that business men in the dairy industry—the producers, the processors and handlers, and especially the machinery and supply group with which I am associated—analyze their present support to the National Dairy Council, and see if, in their opinion, it is sound and progressive business to increase that support now while the Dairy Council is conducting its membership campaign and is planning for the year ahead.

I am confident that a fair analysis would prove that the financial health and growth of the National Dairy Council are indeed very much our business, a business that should pay substantial and steady dividends today and tomorrow.

The NEW

"KING"

Stainless Steel

ALL AIR-PRESSURE

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Automatic Milk Sediment Tester

(MODEL K-P) Patent applied for

UNRIVALED!

Pistol-grip Control permits operation with ONLY one hand.

UNIQUE

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2. **Anticipates dairy inspection requirements, and designed to ease the dairymen's burden.**
3. **Combines all tried and proven features of previous milk sediment testers with POWER and AUTOMATIC OPERATION.**

INCOMPARABLY SUPERIOR

The Super DeLuxe Milk Sediment Tester.
Speed! Economy! Durability! Class!
Foolproof Lifetime Service
Accurate, Reliable Results
Uniformity of Tests

A PRECISION INSTRUMENT IN THE MOST POSITIVE SENSE OF THE WORD—FOR PLANTS OF ALL SIZES

Also available in NEW HAND-OPERATED ALL STAINLESS STEEL MODEL K-C/S.

Our Models K-B and K-C are old favorites of the dairy industry. Models K-P and K-C/S are equipped with *new "KING" HEAD LOCK* (patent applied for) whereby tester must be at bottom of can in order to make the test.

All new and old "KING-STS" milk sediment tester parts are interchangeable.

"E-Z LOCK" Milk Sediment Test Record Cards, with the patented disc-locating circle, are STANDARD—officially recognized everywhere.

SEDIMENT TESTING SUPPLY COMPANY

Sole Producers and Distributors

20 E. JACKSON BLVD. CHICAGO 4, ILL.

DEMAND SIDE OF MARKET MILK

(Continued from Page 43)

1946. This experience seems to be quite general over the country.

The reason for recent decreases in per capita consumption of milk, cream and ice cream, which would occur to most people is that advances in retail prices have run beyond the ability or willingness of consumers to pay. There can be no doubt, I think, that higher prices are the principal cause of reduced sales, even though these products are still cheap in comparison with the advance in earnings of major groups of consumers. In the first six months of 1947 the average weekly earnings of factory workers in New York City would pay for 335 quarts of standard milk purchased at stores in that city. This was only slightly less than the quantity purchasable with a week's earnings in the first half of 1946 which was the peak for all time.

We have had another clear demonstration that the demand for cream and ice cream is much more elastic than the demand for fluid milk. The demand for milk is insistent, but consumers do manage to get along with less when prices rise very rapidly.

More adequate supplies of canned milk, cheese, and other foods that were scarce during the war no doubt are having an adverse effect upon the sales and consumption of fluid milk. On the other hand, the high birth rate tends to increase the demand for fluid milk as well as canned milk and will continue to do for a number of years. Except for this factor the decline in milk sales during the last year would have been greater.

Summary and Outlook

During the war period the U. S. government was a heavy buyer of dairy products, taking nearly one-sixth of the total output in some years. Government buying has been drastically reduced and will not be resumed on a large scale except to prevent prices of dairy products from falling to disastrously low levels.

Civilian consumption per capita of most dairy products is now much above the pre-war level, due largely to high consumer incomes which stimulate the demand for choice foods. Higher retail prices since the end of price ceilings and subsidies last year and increasing supplies of other products have caused some decline in per capita purchases of fluid milk and cream and ice cream. Butter consumption has increased with the appearance of more adequate stocks but remains far below the pre-war level. Per capita consumption of all butterfat is below pre-war while consumption of non-fat solids is nearly one-fourth larger.

Fluid milk sales in New York State cities increased about 25 to 50 per cent between 1939 and 1946, but have suffered a slight decline during the last year. Per capita consumption of fluid milk in the New York-New Jersey Metropolitan Area reached the highest level in 1945 at .93 pint daily. It declined to .90 pint in 1946 and will be lower in 1947, though still fully 10 per cent above the pre-war rate. Per capita consumption of cream in New York is at least 25 per cent lower than the pre-war rate.

Even at the higher retail prices now in effect, fluid milk is cheap in relation to the enlarged incomes of industrial workers. A week's earnings of factory workers in New York City will now pay for about one-fifth more milk than could be purchased with pre-war earnings.

Whether the demand for milk and other dairy products will remain at or near the recent high level depends largely upon the continuance of industrial prosperity and full employment. If business activity and employment should decline the demand for milk and other choice foods might be affected more seriously than was the case when consumption rates for these products were lower.

GOOD MILK CANS

Good milk cans have contributed much to the success of many a dairy and creamery.

That's the kind of cans SOLAR-STURGES makes. Bright, shining containers with a durable coating of Pure Tin. Made for long-time service and lasting satisfaction. They insure top quality milk and cream reaching the market in the best possible condition.

SOLAR-STURGES MFG. CO.
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Gentlemen!

YOUR DOCTOR WANTS TO KNOW

Do your Producers test their cows regularly for Mastitis? Do they use the old "Strip-Cup" method, or, the new, up to date Brom Thymol Test, recommended by Veterinarians?

In other words can he prescribe your Milk with Safety? You know when the Doctor prescribes a Milk Diet for some anxious Mother's baby,

HE HAS TO BE SURE IT'S PURE

There are 60,000 Doctors in this Country. To these men Milk is the BEST FOOD IN THE WORLD. They KNOW its nutritional value and prescribe its use. They KNOW that Mastitis is a Disease of Dairy Cattle. They KNOW that a Quality Food Product can't come from the udder of a Diseased animal.

THE PASTEURIZATION OF MILK CAN'T CURE A SICK COW

SO BE SURE IT'S PURE. The "Strip Cup" is NOT a Test, that he, or your Producer, can depend on. To Safeguard the Quality of your Product, see that Producers make regular use of those fast acting, accuracy guaranteed—

KO-EX-7 Brom Thymol Mastitis DETECTORS

with the Green Spots. Keep a supply on hand for their use. Make the regular test of every cow a MUST. Be on the Doctor's PREFERRED LIST, not his BLACK LIST. If your Jobber can't supply you, write—

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DAIRY DIV. N-4 BUFFALO 3, N. Y.

AYRSHIRES

(Continued from Page 10)

sion are handled through the Association office. Each month a report goes to all herds on test showing the record made by each animal in the herd. The Association has developed a system of record keeping using punch cards, a standard 305 days period of lactation, and a standard of age that enables the information to be readily transferred from the cards to monthly letters.

The Association has developed a new system of certifying proven sires. All daughters must be registered and tested except those that die before they freshen and those sold to non-testers before they freshen. The Association insists on a full and complete story of the animal and the lines of breeding. On the basis of early tests it is possible to project the record ahead and determine which bulls are good and which are poor.

Ayrshires boast of a number of firsts. The Association itself was the first breeder's association to insist that in a herd on Herd Test every registered female in the herd had to be on continuous test. Some Ayrshire herds have been on test for as long as twenty-two years. The Association claims to have the highest percentage of cattle on test of any breed. The program of testing has encouraged making records under normal conditions and has tended to discourage forced feeding and high pressure methods of getting big records.

The breed has produced many outstanding cattle. Ardgowan Valda, Imp. made a record on three milkings a day over a 365 day period of 31,156 lbs. of 4.35 per cent milk. She was twelve years old when this record was made. The accomplishment established her as the world's champion butterfat producer of all breeds on a 3 day milking. Nellie Osborne of Elmshade has a 365 day record of 22,198 pounds of milk with 1,257 pounds of butterfat. Grade Ayrshires, too have compiled remarkable records. "Brownie" a splendid, almost completely brown creature, turned out 20,140 pounds of milk in one year and made a lifetime record of more than 100,000 pounds.

Ayrshires are not miracle cows. They are vigorous honest cattle that turn in a consistently good performance. Under the healthy supervision of their Breeders Association Ayrshires are enjoying a sound development in this country. As a breed they represent another stone in the international edifice that the dairy industry has erected.

Diversey's Industrial Educators

A group of Diversey Corporation representatives who have recently completed an intensive course of training in preparation for taking over various territories throughout the United States and Canada. In the group are also several officers and executives of the Company.

PAMPHLETS AND BULLETINS

Stainless Steel Fittings

A folder on stainless steel wall fittings has been released by John B. Astell & Co. of New York. Folder describes fittings and presents data on fabrication. Printed in color. Copies available on request.

How to Sell the Government

A 32-page booklet issued by the New York Journal of Commerce and designed to take the mystery out of bidding and contract procedures. Fourteen chapters and many illustrations. Lists men and offices that buy for federal government agencies and bureaus. Instructions are given for bidding and a complete discussion is devoted to the details of government specifications and government specification indexes. Copies may be obtained from the Journal of Commerce in New York.

Spectrophotometer Booklet

Distributed by the Burrell Technical Supply Company of Pittsburgh this 8-page pamphlet gives a comprehensive picture of Coleman Instrument Company's new Spectrophotometer. Valuable for people in laboratory work, complete information may be had by writing Burrell concern for bulletin B-212.

Rapid Wheel Gravity Conveyor

Literature on a newly announced light weight aluminum Rapid Wheel Gravity Conveyor is available according to word from the Rapids-Standard Company, Inc. of Grand Rapids, Mich.

The bulletin is a single page in three colors showing prices and specifications. Copies are available from the company.

Home Electric Milk Pasteurizers

A bulletin issued by the Michigan Agricultural Experiment station, the pamphlet is a comprehensive study of small pasteurizing units. The studies were conducted by G. M. Trout authority on homogenized milk and A. L. Bortree both of the Michigan State College.

Composed of 16 pages with charts and illustrations the booklet is well worth reading.

International Review of Agricultural Industries

A technical publication by the International Commission for Agricultural Industries in Geneva, Switzerland, the bulletin contains a long list of references to articles dealing with agriculture and agricultural processing gleaned from wide international sources.

Route Accounting for the Dairy Industry

This material is presented by the International Business Machines Corporation. It is a graphic presentation of a system of route accounting. Printed in two colors and available upon request to the International Business Machines Corporation in New York.

Pneumatic Control Valves and Controller Accessories

A 36-page bulletin issued by the Foxboro Company of Foxboro, Mass. Features of the bulletin include a color page showing various identifying enamel finishes on the valves, plates and tables of specifications, and other separate sections. Copies will be mailed upon request.

Bar-Nun Sifters

An attractive 12-page publication put out by the B. F. Gump Co. of Chicago. Printed in color the pamphlet presents diagrams and pictures of the company's products in the baking and food products field.

Cost of Distributing Milk in Maine Markets

An agricultural Experiment Station Bulletin published by the University of Maine Station, this pamphlet contains 105 pages of detailed material on milk distribution costs in the Pine Tree State.

●

VERMONT VENTURE

(Continued from Page 44)

plant. Although the operation, 6000 quarts a day, is small when compared with some of the great metropolitan plants nothing was spared in an effort to turn out a product of superior quality. Equipment includes a Creamery Package surface cooler, a Cherry-Burrell Spray type pasteurizer, a Creamery Package surface cooler and also a C.P. homogenizer.

The plant is using square type bottles with Daco caps. A Cemac, Crown Cork and Seal Company capper is used.

The complete line of products handled by the company includes family milk, baby top, homogenized, chocolate milk, buttermilk, cottage cheese, sour cheese, salt and sweet butter, eggs, and wholesale orange concentrate. These products are distributed both wholesale and retail in Rutland and in surrounding territory up to a radius of 15 miles. Negotiations have just been completed with a nearby farm for the production of Golden Guernsey and the company expects to add that product to its line within a short time.

Laboratory Is Outstanding

One of the outstanding features of the plant is the laboratory. There is much about the laboratory that one finds in other labs in the dairy industry. There are touches here and there, however, that give this installation a subtle difference. Fine microscopes, handy files, slide racks, plenty of good counter space are a part of the picture. Perhaps it is because this is the only lab-equipped retail dairy in Vermont, perhaps it is because of the pride that the company takes in it, whatever it may be one cannot examine the lab without the feeling that here is the symbol of a healthy progressive operation.

The plant opened in July of this year. Paul VanZandt, associated with Abbott's Dairy in Philadelphia for fifteen years, is vice-president of the concern and manager of the new plant. He says that he has always wanted to get up into Vermont and settle down. The dairy bar and milk plant in the heart of the Green Mountains appears to have been made to order for him and what's more he appears to be a natural made for the Seward enterprise.

It is too early to set the Seward plant down as a venture that has paid off handsomely. Mr. Seward would be the last one to say that he is out of the woods and ready to sit back to enjoy the ride. The problems of breaking in a green staff and working the "bugs" out of a complete set of new equipment are only two out of a host of hurdles that remain to be taken. Even so the new plant as it stands represents a personal triumph for the men who have brought it in to being. Vermont conservatism, notwithstanding, it is our guess that this enterprise has plenty of places to go and all the stuff that it takes to get there.

PAINT: CHAMPION OF QUALITY

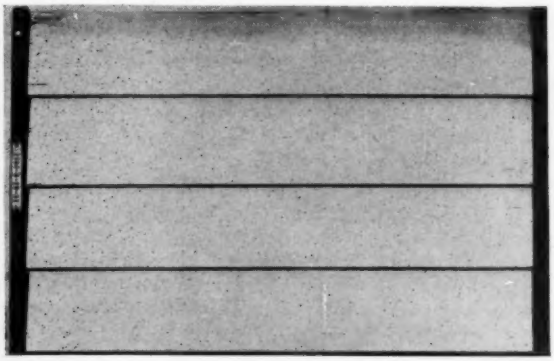
(Continued from Page 36)

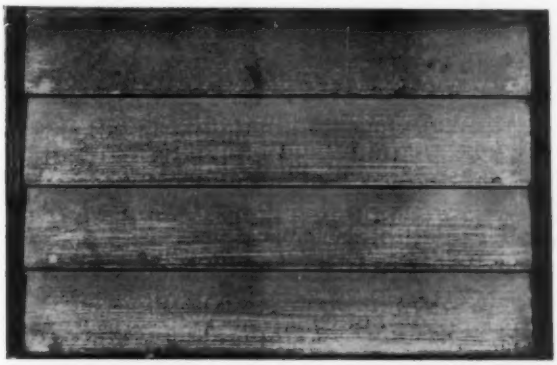
dairy barn is a food factory and as such should be kept clean and sanitary. When germs cause disease in cows, the volume, quality and purity of the milk are lowered. Furthermore, disease germs from unsanitary conditions or from sick cows may be transferred to humans, who use the raw (unpasteurized) milk, as tuberculosis or undulant fever.

The choice of the proper type and color of paint is an important factor in meeting these requirements. A white gloss enamel is used on the interior of this barn for several reasons. Its lustrous, impervious surface provides little foothold for dirt, and so can be kept clean and sterile easily. This paint has resisted scrubbing with hot alkaline solutions for more than 10 years without loss of gloss. Its whiteness reflects its sparkling cleanliness, and is an incentive to good housekeeping. Its high light reflection improves visibility and safety for the operators. Also, it is formulated to decrease the tendency for the development of mold growths.

Mold growth is recognized in the dairy field as a problem of prime importance in selection of paint for dairy barn interiors. It makes impossible the high degree of sanitation necessary in the production of clean, wholesome milk. Molds are minute plant growths, and occur in a variety of forms—mold in food products, mildew on clothes, athlete's foot, etc. They tend to flourish on organic material in moist, warm, dark places.

In the long battle for quality, dairy barns kept whiter than milk through the use of scientifically formulated modern paints are a staunch ally. Not only do paints of this nature resist mould and facilitate cleanliness but their mere presence is an incentive to improved sanitation and better housekeeping.





These two clapboard sections were weathered several years on a test fence. Paint on right section contains no zinc oxide; its sticky chalk causes dirt adherence. Paint on left section has proper percentage of zinc oxide; it has good self-cleaning properties. Zinc oxide is also a mold deterrent.

Baker Leads the Field

The largest most modern dairies in the United States recognize BAKER CRATES as quality leaders. They accept no substitutes because these crates are made of selected tough hardwoods and the best galvanized steel. Baker Milk Crates are carefully fitted to give long wear and maximum protection against breakage.

Territories now available
Write for AMR 11-7

Baker Square Bottle Crates shown above are adaptable to most conveyors and crates of other manufacturers.

MASTER CRAFTSMEN SINCE 1855

BAKER BOX, INC. WORCESTER 8, MASS.

WHY BOYCOTT MILK?

(Continued from Page 7)

institutions and hospitals in this part of the state. All of them admit that the latest increase in the price of milk will serve as a definite hardship on their budgets.

Thousands of letters we have received from our New Jersey neighbors assure us that they have had to curtail their use of milk in the home. This is not a healthy situation. Several members of the milk industry have advised us to cut down on other items in preference to milk. Apparently these gentlemen are unaware of the fact that most women have cut down as much as possible on every other item in the home without endangering the health of the family.

These, then, are some of the reasons why The American Housewives Organized, Inc., has called for a boycott of milk. The boycott went into effect on October 5, 1947. We are fighting, not because of a personal grievance, but because we must have milk in abundance for our families and that will be possible only if the price is brought down to fit the housewives pocketbook!

Will the boycott be effective? I don't know, but I believe it will be despite the fact that women have already cut down so greatly on the amount of milk given to their families that it is almost impossible to get along with less! Of course, women are finding out that both evaporated and powdered milk make excellent substitutes for fluid milk. If women become educated to the use of powdered milk in place of fluid milk, as they are being educated to the use of margarine in preference to butter, it will certainly be an unfortunate thing for the milk industry.

Be that as it may we are admittedly dependent on the farmers, the processors, the distributors for a continued supply of milk. We are grateful to them for having served us well in the past. Won't the members of the industry bear in mind the fact that they are just as dependent for their livelihood, for a continued increase in their earnings, and for the good will of the American people, on that one very important factor in all business,—THE CUSTOMER!

And wasn't it way back around 1939 that there was a very popular and profitable slogan—"THE CUSTOMER IS ALWAYS RIGHT!"

Printed below is a copy of the letter sent by the American Housewives Organized, Inc. to the women of New Jersey.

The American Housewives Organized, Inc. Calls on All Housewives in the State of New Jersey to Boycott Milk

1. Since all agencies, governmental, industrial, agricultural, etc. have failed to halt the spiraling of prices,
2. Since most groups admit that only by strong buyer resistance can we hope to start prices on a downward trend,
3. Since the problem of supplying adequate food to our families is of major importance to the well-being of the nation,
4. Since a survey of large institutions shows that this latest increase in the price of milk will be a definite hardship on institutional budgets with likely repercussions on the taxpayers pocketbooks,

Therefore, we, the American Housewives Organized, call on the housewives and families throughout the state to join us

DOWN GO REFRIGERATION COSTS...

CHECK THE AMAZING SAVINGS-VALUES of the MID-TEXAS ALUMINUM MILK CASE!

✓ **SAVES ON REFRIGERATION:** Studies have proved that the 5-lb. Mid-Texas Aluminum Milk Case requires more than **5 times LESS** refrigeration over a four-year period than a 13-lb. wooden or steel case—a saving of thousands of tons of costly refrigeration!

✓ **SAVES ON HANDLING:** By eliminating tons of dead weight on your trucks, the compact Mid-Texas Aluminum Milk Case cuts your transportation costs by **more than half** over a four-year period of operation.

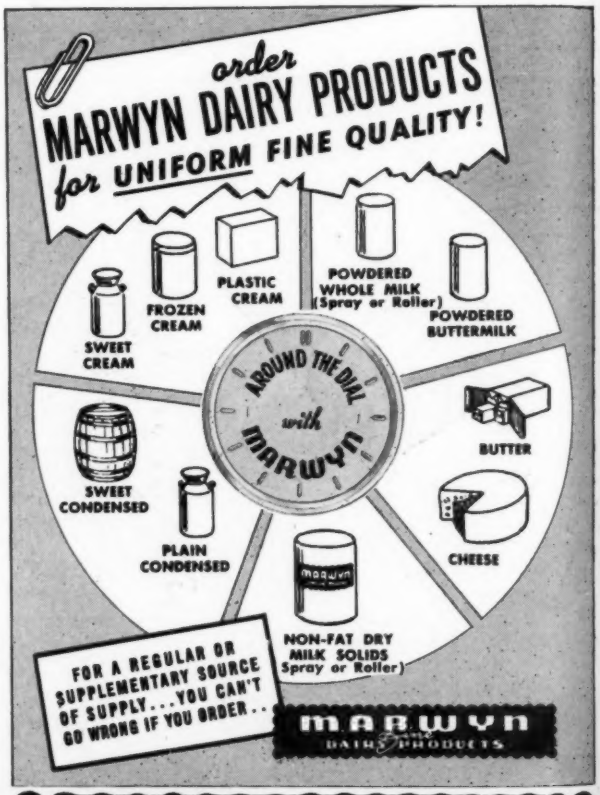
✓ **COMPLETE SANITATION:** The Mid-Texas Aluminum Milk Case does not absorb water or milk, does not rust, and is quickly and easily cleaned by dipping in any recommended aluminum cleaner—keeps a clean, attractive appearance.

✓ **LONGER-LASTING:** Sturdily constructed of aluminum alloy—harder to damage, easier to repair—AND better able to withstand long, rough usage.

✓ **LOW-PRICED:** The Mid-Texas Aluminum Milk case is priced on an average of only a few cents more than wooden cases — an extra cost quickly recovered through savings.

Now Available in Half-Pint (Tall and Squat), Pint, Quart and Half-Gallon Sizes for Square Bottles — Contact Your Jobber or Wire for Specifications.

MID-TEXAS MFG. CO. Fort Worth Texas



MARWYN DAIRY PRODUCTS CORP.
141 W. JACKSON BLVD., CHICAGO, ILL.
401 BROADWAY, NEW YORK CITY • 1206 MAPLE AVENUE, LOS ANGELES, CALIF.
2100 FIFTH STREET, BERKELEY, CALIF.

in a statewide boycott of fluid milk in an effort to keep the price of milk within the purchasing power of the average New Jersey housewife.

This boycott will go into effect on Monday, October 5, 1947, and will proceed for two weeks following, during which time we ask the women to refrain from any purchase of fluid milk for *two days, October 6 and 7,* and from then on to curtail their purchases as much as possible. We feel that most of us can safely manage with 50% of our present consumption during this present economic crisis in the interest of the common good—except in the case of infant feeding and illness.

We suggest that milk may be brought in from neighboring states where it is cheaper by commuting husbands and relatives.

Fruit juices may be given in place of milk to thirsty children.

Evaporated or powdered milk may be substituted in general cooking. Care should be exercised in the selection of evaporated milk to insure that a New Jersey distributors products are not being used.

Refrain from ordering milk in New Jersey Restaurants.

Since the price of school milk has not been increased we urge you to permit your child to buy an extra bottle for lunch at school.

Only by concerted effort can we hope for success. HELP US TO HELP YOU!

For your convenience there is attached hereto a note to your milk dealer which we ask you to insert in your milk bottle on October 6 or 7 which will make you a definite factor in contributing to the success of the Housewives boycott on milk!

AMERICAN HOUSEWIVES ORGANIZED, INC.
87 Waldron Avenue
Glen Rock, New Jersey
Gloria J. Bartlett, President.

Navy Painting Booklet

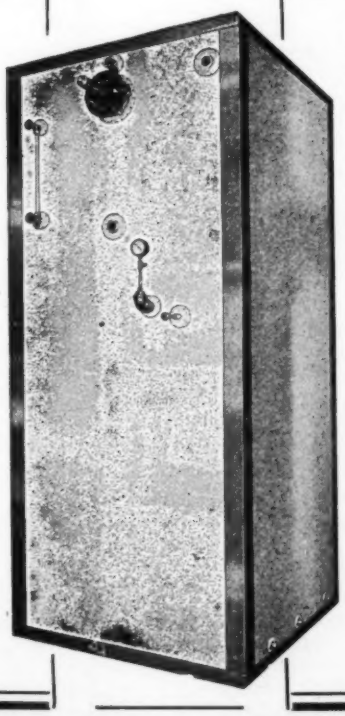
Copies of this booklet may be obtained from Bureau of Ships, Navy Dept., Washington, D. C. It contains some valuable information.

Preferred for its . . .

DEPENDABILITY
EFFICIENCY and
FLEXIBILITY

The
"KING ZEERO"
ICE BUILDER

Write for Bulletin
No. 74



● Profit minded plant operators, big and little . . . all along America's "Milky Way" . . . are installing the "King Zeero" Ice Builder. They know that the "King Zeero" can be depended upon for proper product protection at all times, regardless of plant capacities. Here in one attractive, efficient, compact unit is concentrated the cooling power of tons of ice — always at your disposal . . . when and where you want it. When you install a "King Zeero" Ice Builder you are protecting your profits as well as your product.

Check **THESE FEATURES**

- ★ Builds Ice on Coils During Off-Load Periods.
- ★ Large Capacity Cooling at Lower Refrigerating Cost.
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- ★ Attractive . . . Polished Aluminum Exterior.
- ★ Economical . . . Low Current Demand Charge.

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Milk Filters Now Universally Used On American Dairy Farms

E. C. Damrow Recalls Introduction of Device That Is Now Accepted Producer Equipment—Sees Pocketbook Key to Quality

By E. C. Damrow

MORE THAN 25 years ago some of the dairy farmers around Fond du Lac, who were delivering bottled milk in the city, came to us with a problem. They were having trouble with fine particles of sediment at the bottom of the bottle and wanted us to make something that would filter their milk. This, I believe, was the start of filtering milk through cotton cloth or flannel discs in a filter.

I well remember when the first filter was made. We put a ten gallon can of milk through a clean filter disc and then took this same can of milk and put it through a second clean filter disc. We put the two discs side by side in a picture frame under glass to show the difference between the two discs and took this to the County Fair. It was a surprise to us that, with the exception of some individuals from the larger milk plants in our area, very few people showed any interest.

The condensers, however, immediately got busy, checked into the matter, and ordered filters for every one of their patrons. When the farmers complained to these milk plants that their milk would not go through this device, they usually were sent over to present their complaints to me.

Naturally I had to prove to them that there was too much sediment in their milk that would not, and should not, go through the flannel cloth. I told them that if they took a can of milk and poured it through a filter cloth it might take ten or fifteen minutes to go through the first time; but then if they put a new filter cloth in the filter, the milk would go through the second time just as fast as they poured it in.

Why didn't it go through faster the first time? Because there was too much dust or sediment in the milk from the udders or the teats of the cows; this was taken out in the first straining which clogged the filter cloth.

"But how can we eliminate that?", they would say. The only way to eliminate that is to wash the udders, eats, and the flanks of the cows before you start milking. "Well, if we do that, we do not have to use the filters." "That is just the point," I said, "These filters are nothing but large sediment testers and if you washed the cows udders and teats, you would not have to use the filter." This possibly was the first time that the farmers actually saw what was in the milk.

Control—With Teeth

Several years ago, while in New York, I met one of the State Inspectors who was making a check on every dairy or producer to see that they were using filters and the proper filter cloths; and if a producer had not used two filter cloths each day, one in the morning and one at night, he might be cut off from shipping milk the next day.

When the milk gets to the milk plant, it is again filtered by the plant to see how good a job the producers are doing, or if somebody is slipping. Then after the milk is pasteurized, cooled, and is ready for bottling, it is again filtered, just as the milk enters the bottling machine.

The patented cold milk filter that we developed about ten years ago is a gravity filter and if there is anything in the milk, sediment, garget, or blood clots, it cannot get through the filter cloth. If there is a lot of foreign matter in the milk, it will plug the filter cloth up tight in a very short time. The only thing to do then is to remove the clogged filter cloth and put a new one in its place.

This filter is about the best check on all of the milk received that a milk plant has.

In a number of states, it is compulsory for producers and milk plants to filter the milk, while in other states it is discouraged by the inspectors. They say the milk should be clean. To this, of course, we all agree; but if it is not free from sediment, the only way to show up and improve the condition is to actually make a test of it.

Tests Will Vary

I do not think there is a single operator who is willing to take all of the milk from the farmers just as it comes in, without having a check on it, even if a sediment test is made occasionally. Experience has proved that even a farmer who has always had the highest standard of sediment tests some days may have the lowest.

There is a reason for this. Either somebody neglected to do his job on the farm, there was no filter disc, or it was left entirely to a new hand on the farm to take care of certain work that was formerly done by better trained help.

We recommend that all milk received at the milk plant be filtered either through a pipe line filter or a gravity filter so as to have a check on every day's milk received.

If filter cloths would cost $.50 to $1.00 each and could not be re-used and the operator had to use two or more of them every day, he would try harder to correct the difficulties and troubles than if these filter cloths only cost ten cents apiece. It is actually the dollars and cents that will really bring results. The more expensive the cost would be for filter cloths, the more the operator would take the job to heart.

The best way to improve the quality of the milk is to hit the producers heart through his pocketbook and buy milk by grades, as is done in some states now. I stated quite a number of years ago that each patron's milk should be given bacteria and other tests and he should be paid for quality as well as butter fat, because quality is even more important than butter fat.

There are quite a number of larger plants doing that now to a certain extent I think that it will become more and more necessary for the smaller plants to get together co-operatively either through a field man or laboratory tests, to check such milk that may cause trouble or that is not up to par. This may be a big job to handle, but I believe it will be the best investment a plant ever made.

●

APPEAL COURT RULING

Indianapolis, Ind. (E.B.)—Management of the Indianapolis Dairymen's Co-Operative has indicated it may appeal a Circuit Court decision here, which prevents reorganization of the group or distribution of its assets. The decision was returned by Judge Lloyd D. Claycomb. It upheld a group of "insurgent" milk producers who asked the co-op to retain status quo while the Indiana Supreme Court appeal is pending.

The appeal was taken by the management after the insurgent group headed by Cash R. Bottema, Jr., of Bridgeport, Ind., has asked and won appointment of a receiver for the co-operative. State Senator Hoyt S. Moore was named receiver in September, but has not served pending the outcome of the Supreme Court case.

SHOULDN'T A' DONE IT

A fine of $1,000 for violation of War Food Order 8 was imposed on the Venetian Dairy, Inc., of North Adams, Mass., on October 10 in the U. S. Court for the District of Massachusetts in Boston.

The Venetian Dairy, Inc., was charged with using milk solids in the production of frozen dairy products in excess of quota as provided in the War Food Order. The purpose of War Food Order 8 was to assure an adequate supply and efficient distribution of dairy products to meet essential uses during the war. It became effective on February 1, 1943, and was terminated in September, 1945.

Information against individual defendants in this case was dismissed. A plea of *nolo contendere* was entered by the corporation.

INDIANA DAIRY CONVENTION

Mid-November is the big time for the Indiana Dairy Products Association. Meeting at the famous French Lick Springs Hotel the Association's 30th Annual Meeting and Convention will start with a "kick-off" luncheon at noon on November 17. The two days of meetings and conferences will be topped off with a final banquet on the evening of the 18th.

Executive Secretary C. C. Hadley advises that "French Lick is an ideal convention spot; many new recreational facilities have been added, along with a thorough redecorating under new management. Particular attention is called to the airport facilities and railway connections offered by the Monon and B. & O. Railroads."

With a first class program lined up that should prove of considerable value to members of the industry Secretary Hadley bids the membership to "Come early, spend a week end at French Lick and attend the convention on Monday and Tuesday".

Planning the event is a program committee headed by W. H. Morgan, Tip Top Creamery, Vincennes, and assisted by

F. E. Tyrie, Schlosser Brothers, Indianapolis.

J. Ralph Thompson, Thompson Dairy Co., Seymour.

Frank Palmer, Reliable Dairy Co., South Bend.

Leonard Tamblyn, Borden's Capitol Dairies, Indianapolis.

E. T. Eskilson, Dixie Dairy Co., Gary.

Lyman Langford, Armour Creameries, Rochester.

Newell Neuhauser, Central Dairy, Ft. Wayne.

James Dolan, Wayne Dairy Products Co., Richmond.

ECONOMIC CONSIDERATIONS

(Continued from Page 22)

of dairy reporters, the level of feeding averaged 30 per cent higher than the average of the period 1931 to 1940. Relative to that period, grain feeding during the summer months has been especially heavy. On July 1, 1947, for example, the amount of grain fed per cow was nearly double the 1931-40 average for this date.

If the present reduced ratio of milk to feed prices is continued, grain feeding per cow may be expected to decline. This fact, coupled with the poorer quality of hay made this season, suggests that milk production per cow may decline during November and December right at the time that milk supplies are most needed.

Fall Milk Price Incentive

Reducing the Class I price of milk in New York from $5.46 in January to $4.14 in May tended to discourage milk production during the spring months of flush production. Raising the price in the summer and early fall has the effect of encouraging production in this season of short supply. In the light of the higher costs and reduced local feed supplies and quality just discussed, dairymen this fall particularly need the encouragement of such a price incentive.

SANI-CERTIFIED Milk Trailer Tanks, Fully Insulated With Stainless Steel Inner Tank Now Being Used By South American Dairies.

Certified DAIRY EQUIPMENT

Milk Storage tanks
Truck tanks
Trailer tanks
Receiving vats
Weigh cans
Hot wells
Ice Cream mix tanks
Cooling vats
Pasteurizers
Cream coolers
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General purpose tanks
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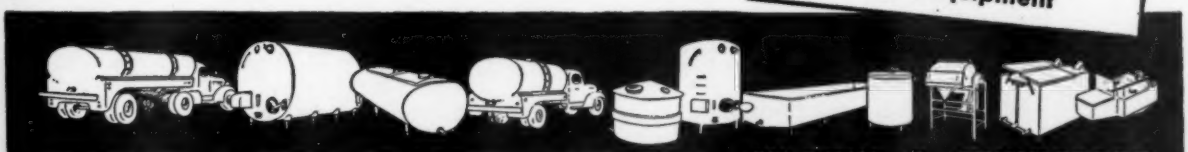


STAINLESS & STEEL PRODUCTS COMPANY ST. PAUL 4, MINNESOTA

European Aid Program Possible Blow To American Agriculture

President of Land O'Lakes Sees Need For Care In Developing Plan For Foreign Relief—Dairy, Poultry Products Lag in Price Advance

THE PEOPLE OF THIS country should save every ounce of food they can and give whatever assistance possible to foreign countries, but to do so we must remain strong in our own right, and the plan for a program of this kind must be thought out and arranged in such a manner that it will not strike at the very heart of our basic industry which is agriculture.

That statement was made recently by John Brandt, president of Land O'Lakes Creameries, Inc., in a discussion of the effects of President Truman's food conservation order.

Brandt said that the immediate market reaction, so far as dairy and poultry products were concerned, was one of weakness and uncertainty at a time when conditions of production and consumption were indusive to strength and firm prices.

"I do not believe," he said, "that the American farmer should be the one to suffer all the loss in income in order to reduce the costs of living and feed the whole world.

"It is doubtful if the general public realized that, prior to the President's order, prices of dairy and poultry products were already below 1946 levels."

He cited the following quotations as of October 1, 1946 and October 1, 1947:

	Oct. 1 1946	Oct. 1 1947
Butter (N. Y. quotation 92 score)	83c	77¼c
Cheese (Plymouth, Cheddars)	45½c	37½c
Poultry (Heavy roasters, N. Y.)	55c	45c
Eggs (N. Y.)	73c	65c
Turkeys (Young hens, N. Y.)	61c	51c
Milk Powder (Spray-deliv.-Zone A)	15½c	12½c

"From those comparisons," Mr. Brandt said, "it is plain to see that dairy and poultry products have not kept pace with the general advance that had been talked about so much.

"Following the Presidential order, butter prices declined to a still lower level. The price of 92 score butter in New York on October 10 was 72 cents per pound, which is a further decline from October 1 levels.

Poultry In Weak Position

"Turkeys and poultry," Mr. Brandt said, "were in an extremely weak position. Some buyers, he added, uncertain as to future developments, refused to buy any of these items for several days. The Land O'Lakes Creameries, he declared, found it necessary to lower its cash prices on both turkeys and poultry, and while the turkey situation may change, it was necessary to reduce the advance price 5c per pound following this order. This, however, may not affect the final settlement if conditions change by the time these turkeys are put on the market by Land O'Lakes Creameries.

"We hope the situation will correct itself," Brandt said, "but if it doesn't, turkey raisers almost without exception, will have to suffer a severe loss in their operations for 1947. This loss is not only represented by a lower financial return, but is an actual loss with respect to cost of production. This is the time of year when poultry and turkeys are marketed. Storage houses are pretty well filled up and, unless the poultry and turkeys go to the market as usual and consumption is encouraged, a glut in the market and severe waste may follow.

"Very little grain can be saved so far as the usual marketing of poultry and turkeys is concerned. They are now about ready for the market, and the farmer who has worked hard all through the season in the hope of finding a ready market for his products may well be disappointed. The same situation may exist so far as livestock is concerned.

"Production of poultry and livestock is a farm operation that cannot be turned on and off like you turn the water faucet in the kitchen. It is a matter of long-range systematic planning that has been the foundation of the prosperity of American agriculture. If the program works out as expected, the farmer who has worked the hardest and managed his affairs well will be struck a blow that will disarrange all his planning and will affect the welfare of the nation as a whole.

"If all groups of world society, including those who need help, had worked as hard and put in as long hours as the farmer and his wife, we would have no shortage today. It is time we plan our assistance on a self-help program that will encourage greater and more economic production, not only in America, but in the world as a whole."

●

VENEZUELA COMPANY

The Golden State Co., Ltd., San Francisco, one of the country's leading milk companies, has joined in a milk products enterprise to be organized in Venezuela, Nelson A. Rockefeller, president of the International Basic Economy Corp., announced here yesterday.

The project is one of several joint enterprises being organized in Venezuela and Brazil through affiliate companies of International Basic Economy Corp.

The Golden State Co. has agreed to participate financially with Venezuela Basic Economy Corp., affiliate of IBEC, in the Venezuelan milk company and provide technical experience and management.

FOR A DEPENDABLE SOURCE OF HIGH QUALITY DAIRY PRODUCTS, CALL US.

MILK
FRESH CREAM
FROZEN CREAM
SOUR CREAM
COTTAGE CHEESE
FARMERS CHEESE
POT CHEESE
BUTTER
BUTTERMILK
DRIED SKIM MILK SOLIDS
SWEETENED SKIM CONDENSED MILK
ICE CREAM MIX
BAKERS CHEESE
PLAIN SKIM CONDENSED MILK

GRANDVIEW DAIRY, Inc.

6071 METROPOLITAN AVENUE, RIDGEWOOD, N. Y.

PLANTS AT:

Arkport, New York — Bear Lake, Pennsylvania — Cohocton, New York — Neenah, Wisconsin

ORGANIZE NEW DAIRY SOCIETY

Robert Owen Chosen Head of New Technical Group in Illinois

The Central Illinois Dairy Technology Society was organized at Bloomington recently with Robert Owen of the J. D. Roszell Company, Peoria, elected president. The new organization is a companion to similar groups at Chicago and St. Louis with membership composed of individuals interested in the advancement of the science of dairy manufactures.

The new vice president is Enos Huffer, Illinois State Department of Public Health treasurer, Mrs. Betty Cunningham, Beatrice Foods Company, Decatur; secretary, Dr. P. H. Tracy, University of Illinois, Urbana; recording secretary, Gordon R. Lloyd, Benson Creamery Company, Decatur, and Sergeant-at-arms E. J. Tarr, Producers Dairy, Springfield.

Owen pointed out that the new organization is a result of the "success of similar societies elsewhere and should go far in correlating the practical and scientific developments in the dairy industry for this area."

Doctor Tracy, professor of dairy manufactures at the University of Illinois, is currently president of the American Dairy Science Association and was instrumental in promoting the organization for those connected with the dairy industry in central Illinois. Professor Tracy is credited with stimulating the formation of the Chicago Dairy Technology Society in 1930.

R. E. Hoyt, Beatrice Foods Company, Bloomington, served as chairman of the arrangements committee for the organizational meeting.

●

PURDUE MAN APPOINTED

Albany, N. Y.—Dr. Ernest C. Young, Professor of Agricultural Economics and Dean of the Graduate School at Purdue University, has been retained by the New York State Temporary Commission on Agriculture as Director of Research to supervise the study of milk price spread planned by the Commission, it was announced last month by Senator Austin W. Erwin of Geneseo, Chairman of the Commission. Dr. Young began his work with the Commission on October 15.

Dr. Young, who has been a Professor of Agricultural Economics and Dean of the Graduate School at Purdue University for several years, was born September 1, 1892, at Grove City, Pa., and spent his boyhood on a dairy farm there.

He taught science in Pennsylvania High Schools until the fall of 1916 when he entered Cornell University. He completed his work for a Ph.D. in September, 1921, after an interval of a year in the Army Air Service during World War I.

Dr. Young went to Purdue University as an Assistant Professor of Agricultural Economics in September, 1921. He has been there continuously, except for 1934 and 1935 when he was granted a two-years leave of absence to work with the Farm Credit Administration as assistant to the Governor of FCA.

●

INDUSTRIAL RELATIONS

(Continued from Page 20)

relations, I am constantly reminded of the wisdom of this philosophy. So long as we continue to struggle for a solution to the problem, hoping to find some substitution or way to improve the will, we are in difficulty, but when we have brought about a better understanding of the motives of ideas and the meaning of the problem under consideration, then the solution to it inevitably tends to grow within us and as we reach a common conviction, all of the difficulties somehow seem to disappear.

Getting along together is an art and the full expression of sensible and honest compromise. We are learning how to use it and so long as we continue the future of industrial relations in the United States will continue to grow brighter as it has done these many years of the past.

Stoelting

PLANT-PROVED EQUIPMENT

FOR GREATER ECONOMY and EFFICIENCY

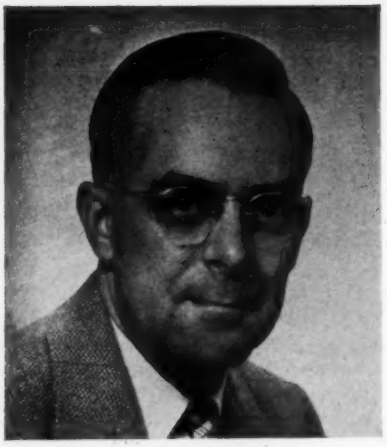
STOELTING "Flavorite" PASTEURIZER

Simple . . . Positive . . . Dependable

Dairy plant operators prefer Stoelting plant-proved equipment because of its many outstanding points of superiority and its ability to do a better job at a lower total cost. Typical of the features found in the new Stoelting Pasteurizer is its rapid transfer of heat. Milk is brought to pasteurizing temperature by steam heating — that means even heating without flavor destroying scorching or cold spots. Special inclined propeller type agitator, driven by an entirely enclosed self lubricated motor, provides gentle yet positive action, regardless of the amount of milk in machine. Inner jacket is of stainless steel. Outer jacket on standard model is finished with white enamel. Deluxe model has No. 4 polished stainless steel outer shell. Write for additional information.

FOR PASTEURIZING and COOLING

STOELTING BROS. CO., KIEL, WISCONSIN



Dr. Robert F. Holland

PROBLEMS of the INDUSTRY

Dr. James C. White

Dr. Robert F. Holland and Dr. James C. White, both of the Department of Dairy Industry at Cornell University, conduct their question and answer column each month in the "Review". Questions should be addressed to either Dr. White or Dr. Holland, Department of Dairy Industry, Stocking Hall, Cornell University, Ithaca, New York.

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Using Frozen Cream

QUESTION—"When we use frozen cream in the making of the sour cream we have noticed of late that at the end of the batch huge quantities of solid butter fat came over the cooler pipes. This never happens when fresh cream is used. On previous occasions the amount of fat coming over the cooler at the end of the batch has been insignificant, but lately we have gotten as much as 20 quarts out of a 300 gallon batch.

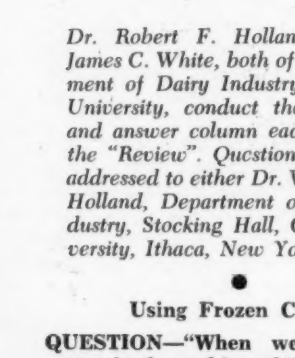
"Can you tell us what causes this, and how we can correct this situation?

A. G.," New Jersey.

ANSWER—The use of frozen cream in the making of sour cream and other dairy products has become increasingly popular in the last few years because of its economic advantage, but many users have not had adequate experience with the product and thus have run into trouble from time to time. The most important consideration in the handling of frozen cream is to make sure you have a good product to start with. The cream must be separated from high quality fresh milk. If the milk has been allowed to cream exhaustively, the fat globules will be collected into large groups which are consequently unstable after the fat has melted, so that you will find frozen cream will not always be uniform in stability.

In our experience, we have found that one of the most important items in the handling of frozen cream is the method by which it is melted. We have seen operators place frozen cream in a vat of hot water, melt the outside enough to make it slide out of the cans, and place this frozen product in one large lump into the process vat, allowing it to be broken up by the agitators. This sort of treatment usually results in serious oiling off. If it is at all possible, the cream for the next day's run should be removed from the cold room and placed at room temperature overnight. This allows the cream to melt gradually without agitation, because it is often said that the grinding action of agitators tends to smear the fat across the surfaces and bring about larger fat particles and hence more instability. If the cream is permitted to melt slowly at low temperatures and then is added in a liquid condition, or at least in a condition where it is not hard frozen, it will be incorporated much more easily into the product and prevent much trouble from oiling off or churning. Most people who are making sour cream are homogenizing their mix. If this frozen-cream mixture, which is to be used for sour cream is homogenized before it is run over the cooler we think that the trouble will be eliminated. We would suggest that you use one of the standard methods for making sour cream which includes the use of the homogenizer, and you should be able to eliminate this difficulty.

In the ordinary method of making cultured sour cream, cream is standardized to 18 per cent fat or slightly above and is pasteurized at at least 165 deg. F. It is then homogenized hot at 145 to



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ORIGINATORS OF DDT INSECTICIDES

155 deg. F., at pressures of approximately 3,000 pounds per square inch. The cream is then cooled to about 72 deg. F. over a surface cooler after homogenization, and this will prevent in large part the bad oiling off which you have experienced. It is inoculated at 72 deg. F. with about 2 per cent of a good starter. Rennet, if it is desired, is added at the rate of about ½ ml to a 10-gallon can of cream. The cream is then ripened at 72 deg. F. for about 15 hours, or until it has a distinct acid flavor, and the pH is in the neighborhood of 4.5. The cream is then cooled to 40 deg. F. Small jars can be cooled satisfactorily in cold air. Cans should be placed in ice water.

Packaging of this product must be done after the starter has been added, and ripening occurs in the package. This makes it unnecessary to package the finished product after it is set up and prevents in large measure the wheying off which is experienced when the thickened product is agitated.

As you know, there are many methods of making cultured sour cream and we are not sure what refinements you are using in your process, but the standard method which we have advocated seems to be the most common and we have made advisements on that basis.

Specifications For Receiving-Room Equipment

QUESTION—I am thinking of installing a new weigh can and receiving tank. Several manufacturers have talked over their products with me but they do not agree as to the best style. I want to get one that the health department will approve. Can you give me any specifications that will guide me?

A. P. W., New York.

ANSWER—Some years ago three organizations interested in the welfare of the dairy industry set out to establish standards for dairy equipment that would assist the manufacturer by providing specifications for design, weight of metal, finish, etc., and would give health departments and plant operators facts upon which to base their approval or disapproval.

These organizations which have developed the so-called 3A Sanitary Standards are the International Association of Milk Sanitarians, the United States Public Health Service, and the Dairy Industry Committee.

3A Standards have been set up for holding tanks, sanitary pipe, fittings, etc., and on June 23, 1947, standards were set up for weigh cans and receiving tanks for raw milk.

These standards specify the capacity of the receiving tank; the gauge and composition of the metal used; the fabrication of the tanks, covering the welds, radii of the corners, bracing, etc.; outlet valves; conduit; weigh can strainer and covers.

Specifications are published in full in the *Journal of Milk and Food Technology* v. 10, No. 5, September-October, 1947, or they may be obtained by writing to the United States Public Health Service, Washington, D. C.

I would strongly advise that you study these standards before purchasing new receiving equipment.

Hold Your U. S. Bonds

ILLINOIS DPA CONVENTION

The war paint is ready out in Illinois where members of the Illinois Dairy Products Association are turning their eyes toward 3 big December days. According to M. G. Van Buskirk, Executive Secretary of the Illinois organization Monday, Tuesday, and Wednesday, 15, 16, 17 of the Christmas month are the dates for the 15th Annual Convention.

The meetings will be held in the Morrison Hotel in Chicago with registration scheduled for 8 a.m. on the morning of the 15th. Three days of program and two evenings of banquets stack up as fitting introduction to anybody's week.

1ST CHOICE of America's Leading Egg Merchandisers

From coast to coast, successful egg merchandisers are consistent users of SELF-LOCKING CUSHION EGG CARTONS. It's no secret why, because SELF-LOCKING CUSHION EGG CARTONS are more than egg cartons—they are a modern method of profitable egg *merchandising* . . . The keen, aggressive executives responsible for sales in firms such as listed below recognize this fact . . . capitalize on it!

Why Leading Egg Merchandisers Choose Self-Locking Cushion Cartons

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2. Outstanding display of eggs
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PLAN CO-OP. STUDY

Program in New York Milk Shed to be Administered by C. O. Hyde

A program designed to "reacquaint every cooperative in the milkshed with the responsibilities and obligations assumed in accepting dairy farmers' money from the producer settlement fund," has been put into operation in New York State. Initiated by the Market Administrator for the New York Metropolitan area in response to marketing orders, the program will seek to develop "cooperatives that will truly reflect the best interests of the dairy farmer".

According to Dr. C. J. Blanford, Market Administrator for the Metropolitan area, it will be necessary to make a complete examination of all records, papers and files of each association. The examination will include, the by-laws of each association; all financial records; contracts, if any, between the associations and their handlers; contracts between the associations and brokers, if brokers are employed; contracts between the cooperatives and their members; contracts between cooperatives and producers who are not their members; records kept of meetings between the cooperatives and handlers, or brokers, or between officers or directors or members of cooperatives and their handlers or brokers, whichever may be the case; minutes of all meetings or transactions; papers or files showing the manner and kind of communication between the cooperatives and their members or other persons or corporations; and other items of business as they relate to cooperatives.

The entire program of reorientation and study will be under the direction of G. Osmond Hyde. Possessing a wide background as lawyer with the United States Department of Agriculture, and a farm boy by birth, Mr. Hyde is described by Dr. Blanford as having "an appreciation of the problems of dairy farmers and the value to them of the cooperative movement".

Mr. Hyde became known to the New York Milk Marketing area when he was assigned to the district to handle cases involving claims for dispersion payments.

Dairy Daze

By Edgar Allen, Jr.

"MRS. SMYTHE HAD ME FOOLED — FOR A MOMENT I THOUGHT IT WAS ONE OF OUR PASTEURIZERS WALKING OUT!"

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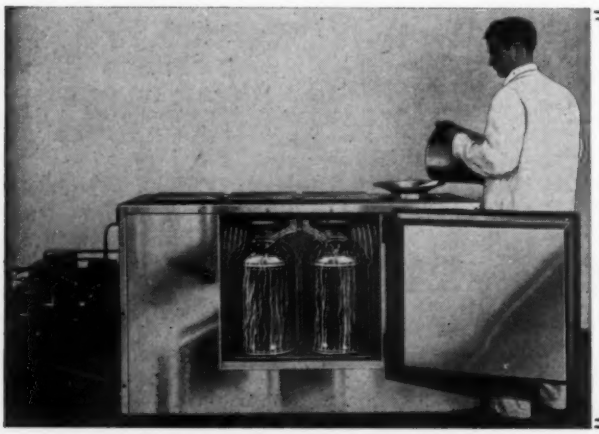
PRODUCE NEW STYLE CHEDDAR

A third Minnesota cheese factory now is producing a new style of cheddar cheese according to George Pfeifer, assistant general manager of the Northern Division of the Kraft Foods Company.

Production of the new style of cheddar has just been started at the Kraft plant in Hutchinson. Made in ten pound "bars" and packaged in its own transparent wrapper in the factory, the cheese is also being made in plants at Watkins and Melrose, Pfeifer said. The cheese is made without paraffin, without cheesecloth bandage and has virtually no rind.

The new size cheese is a result of years of research which included improvement of production technique, development of a suitable packaging material and perfection of packaging machinery, Pfeifer declared.

"Stability of quality and reduction of waste by elimination of rind, paraffin and bandages has created a ready consumer acceptance of the new product wherever it has been sold," he said. "Our company believes the 10-pounders will do much to create an ever widening market for more and more high quality natural cheddar cheese."



FOR REFRIGERATION WITHOUT LABOR

IT'S THE T-33

FOR MILK COOLING — FOR CREAM COOLING

So Easy . . . So Convenient and Fast. No heavy cans to lift. You merely place the empty cans in the cabinet, place the milk strainer in the proper opening on top of cabinet and pour your milk through the strainer.

ZERO MANUFACTURING COMPANY

General Office — Washington, Missouri

DRAPER, NEW MANAGER

Solvay Sales Corporation, manufacturers of alkalies and chemicals, has announced the appointment of Mr. Neal M. Draper as Manager of the St. Louis Branch. Mr. Draper, who has been a salesman in the St. Louis territory for the past 12 years, succeeds Mr. M. S. Johnson, who has been transferred to the Boston Office. Mr. Elmer Seener has been appointed Assistant Branch Manager of the St. Louis Branch.

The Solvay St. Louis Branch covers the territory of Nebraska, south through Oklahoma and Arkansas and west through and including the Rocky Mountain States.

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HONOR ST. LOUIS CONCERN

New York, N. Y.—"Pevely" dairy products, introduced in 1887 by the Pevely Dairy Company of St. Louis, was among the 60 brand names which received a Certificate of Public Service from the Brand Names Foundation for 50 or more consecutive years of service to the American consumer, at a dinner held at the Coronado Hotel in St. Louis on September 29th.

The Certificate of Public Service was presented to J. Wm. Hagemeyer, President of the company, by Robert L. Lund, Chairman of a Committee of St. Louis businessmen who acted as Sponsors for the dinner, and a senior officer of Lambert Pharmacal Company, member of the Foundation, before a gathering of more than 400 business and industrial executives of the St. Louis and mid-western areas.

The sixty brand names awarded the Certificates of Public Service at the dinner represented a wide cross section of American industry. The oldest has been marketed since 1849, the youngest since 1897. All were honored by Brand Names Foundation as "products which have been tested by the American people for fifty consecutive years or more and have won and held public confidence through unfailing integrity, reliable quality and fair pricing."

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ADA GOES TO CHURCH

Chicago, Ill.—Unique recognition was given an American Dairy Association message recently when an Iowa minister posted the ad "Perhaps Another President" on the church bulletin board and printed complimentary comments in his weekly church bulletin.

"Congratulations to the American Dairy Association," penned the Rev. O. W. Brand, pastor of the Methodist Church at Algona, Iowa, in his calendar announcements, "for their forward step in making America conscious of the things that build sound bodies, brains and happy people."

The ad which the Rev. Brand posted in his church was a full color reproduction of a schoolboy singing "God Bless America," and the copy paid tribute to the school lunch program. The ad appeared in the September 21 issue of the American Weekly, Sunday supplement to many metropolitan newspapers, reaching into 9,200,000 homes across the nation.

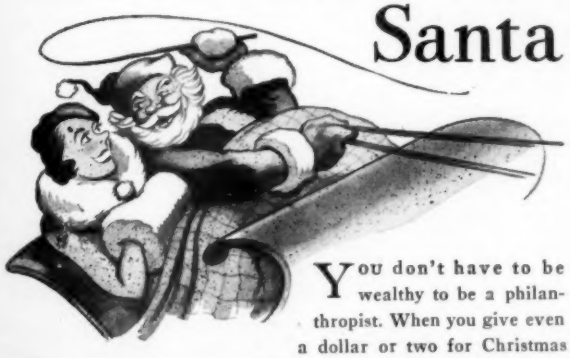
Owen M. Richards, general manager of the American Dairy Association, wrote to the Iowa minister: "No finer, no nicer praise could come to our effort in the advancement of a worthy cause. By word and by deed you've made something sacred of this Association's message, 'Perhaps Another President.' In the name of the nation's five million dairy farmers, producers of food for a better life for all mankind, we give thanks to you."

●

BALLARD OF THE WOLF

Indianapolis, Ind. (E.B.)—The Ballard Ice Cream Company here, together with a laundry, has the distinction of being the first company to be hailed into municipal court on a charge of violating the anti-smoke ordinance. Robert L. Wolf, combustion engineer for Indianapolis, preferred the charge. The court announced he was withholding action until November 7 to give the firm a chance to get together with Wolf and work out remedial steps.

How to ride with Santa



You don't have to be wealthy to be a philanthropist. When you give even a dollar or two for Christmas Seals, you give the greatest gift of all — health, even life itself.

Christmas Seal funds make possible year-round help against tuberculosis — the dread TB that threatens more people between 15 and 44 than any other disease.

Add Christmas Seals to your Christmas giving. Let Santa's every letter, every package carry the Seal that saves lives. Send in your contribution today.

BUY CHRISTMAS SEALS

Because of the importance of the above message, this space has been contributed by

AMERICAN MILK REVIEW

MEDICALLY APPROVED

No milk **except**

Certified MILK

gives you the distinction of telling your customer you *voluntarily* submit to regulation of the Medical Profession.

THIS PRESTIGE INCREASES ALL YOUR SALES

Write now for information

AMERICAN ASSOCIATION OF MEDICAL MILK COMMISSIONS

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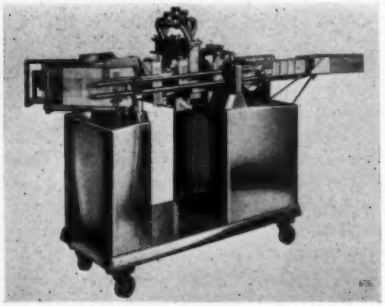
Help Fight Tuberculosis — Buy Christmas Seals Today

USING OUR SEPARATOR • ITEMS OF INTEREST SKIMMED FROM HERE AND THERE

Packaging Machine

A NEW ICE CREAM packaging machine operating automatically and capable of setting up, filling, and closing No. 2 linerless cartons will be placed on the market in the near future by the Anderson Bros. Manufacturing Co. of Rockford, Ill.

The Machine will take the full capacity of three 150-gallon continuous freezers or a total of 450 gallons per hour.



It is equipped with two production lines (for slower operation per line), each producing up to thirty packages per minute or a total of 3600 pints per hour.

The machine does not change the texture of the ice cream and the flow from the freezer is never stopped when the machine is running—the ice cream goes directly from the freezer into the carton. The machine will handle the ice cream either stiff or relatively soft. It will handle plain ice cream or ice cream with fruits, nuts, or candy in it, according to the manufacturer.

The entire machine except the motor and clutch unit is made of stainless steel or nickel silver. The complete base which houses the motor and clutch unit is made of stainless steel. All parts that come into contact with the ice cream or cartons are designed for ease in dismantling for washing and cleaning. The dimensions of the machine are 27″x60″x57″.

Aid to Cement

AN AIR ENTRAINING agent designed to increase the life of sound concrete and mortars by preventing disintegration due to weather conditions and use has been placed on the market by A. C. Horne Co.

Air entrainment is a process whereby 3 to 5 percent of air is trapped in concrete in the form of tiny bubbles. The value of air entrainment, according to the Horne Co., is in a concrete that maintains flexible strength with age and in improved scaling resistance.

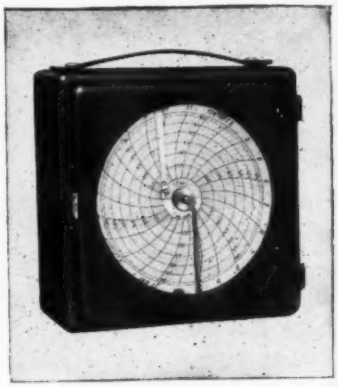
AYR-TRAP is the commercial name of the Horne product. The material comes in either a liquid or powdered form and is used when the cement is being mixed.

Direct Ammonia Cooling

IMPORTANT TECHNICAL advantages of direct ammonia cooling are set forth in a new, colorful and well illustrated bulletin just issued by Mojonnier Bros. Co., Chicago. Shown are installation views together with a diagram illustrating simplicity of the direct ammonia system, which does away with any intermediate heat transfer systems in cooling milk (raw, regenerated or pasteurized), ice cream mix, cream, skim or evaporated. It is stated that lower product temperatures are achieved since ammonia refrigeration is used from 25 deg. to 30 deg. F. (below freezing point of product cooled) – also that direct ammonia means less equipment to operate plus lowest possible power costs. Another advantage is pointed out in pasteurization by the short-time, high-temperature method. Here, direct ammonia cooling proves equally effective with or without regeneration. Two models of Mojonnier Stainless Steel Compact Coolers are made; the Junior Cooler, having a capacity range from 300 to 5000 lbs. per hour; the Senior Cooler, handling from 3000 to 60,000 lbs. per hour. Cooling plates, or sections, of both models swivel open for easy cleaning.

Temperature Recorder

A MINIATURE-SIZE temperature recorder, designed for use in the many applications where a shock-resistant, easily portable temperature recording intrument is necessary, has been announced by the C. J. Tagliabue Mfg.



Co., Brooklyn, N. Y. This instrument is useful for checking refrigerating, heating and air-conditioning equipment.

The instrument is available in two forms: the single-pen recording thermometer for recording temperature only, and the two-pen temperature and time-operation recorder, which charts the running time of refrigeration motors in addition to recording temperature. Chart

COFFEE the Milky Way

Café Olay

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— That's Why Dairymen from Coast to Coast Are Specifying *E-Mac* Brushes.

A Brush for Every Dairy Need

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DESCRIBING OUR COMPLETE LINE

E-Mac DAIRY BRUSH CO., Reading, Pa.

drive is a 7-day spring propelled mechanism with charts of 24 or 72-hour duration. Each recorder is enclosed in an aluminum case with smooth, black enamel finish. Overall dimensions are: 5¾ inches square, 4¼ inches deep, and total weight is less than 3½ lbs. The manufacturer will supply illustrated literature and prices on request.

Aluminum Ladder

THE ALUMINUM LADDER COMPANY, 200 Carbis St., Worthington, Pa., has developed a new aluminum trestle ladder for use in painting, cleaning, interior decorating, servicing outdoor signs, and similar work.

Constructed of strong, lightweight aluminum alloy throughout, the trestle

ladder may be used with others of its class to support stages and platforms, or it may be disassembled for two separate units. The adjustable center-piece ladder may be entirely removed for use as a straight single wall ladder, while the remaining part becomes an "A" type ladder capable of supporting a substantial weight.

The trestle ladder shown here is constructed of 61ST Aluminum Alloy, having a tensile strength of 45,000 lbs. per square inch. It is available in extended lengths of 10, 14, and 18 ft. The 18 ft. ladder weighs 55 lbs.

Complete information and prices will be supplied upon request to the company.

Soapless Cleaning Composition

A NEW, SCIENTIFIC cleaning material, Oakite Composition No. 83, suitable for use in dairies for manual cleaning operations where effectiveness in cleaning and mildness on the skin of the operator are desirable characteristics, has just been announced by Oakite Products, Inc., New York.

It is a soapless material and does not clean on the same principle as soap. It contains a special emulsifying surface-active ingredient which considerably steps up its detergent properties. Milk and butter fat deposits are removed rapidly, the manufacturer says, and no greasy film is left on equipment surfaces . . . nor is there any greasy ring around solution container after cleaning solution is drained.

"Selectaspeed Pumpmaster"

A NEW TYPE of variable speed driver pump has been designed and engineered by the Waukesha Foundry Co., Waukesha, Wis.

Named the "Selectaspeed Pumpmaster," the new unit according to the manufacturer accurately controls pumping speeds to conform to the correct minimum holding periods required for proper pasteurizing by sealing easily at high speed stops. As a result, the designers state that accuracy of quality control of products pumped with the new "Pumpmaster" is "definitely enhanced."

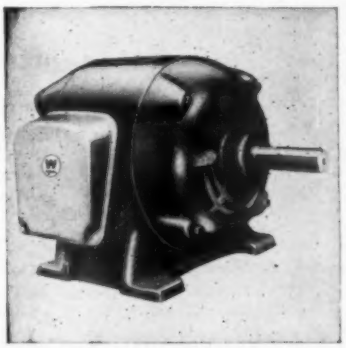
Operating convenience is another feature of the new Waukesha "Selectaspeed Pumpmaster." Belts are easily changed by removing the back cover of the unit and raising the motor to its highest point by turning the hand-wheel provided.

The entire unit is enclosed for full protection against moisture and vermin. It has been tested and approved by health authorities. In addition, complete external sealing of the unit is provided. The case of the "Pumpmaster" is of cast aluminum, degreased and painted with white enamel, and equipped with adjustable sanitary feet.

A descriptive folder may be obtained by writing the company.

All-Steel Farmotor

Embodying the all-steel construction of the Life-Line motor—frame, feet and end brackets—the Life-Line Farmotor is available from Westinghouse Electric Corporation in sizes of 1, 1½, 2, 3, 5 and 7½ h.p. These are capacitor-start induction-run single-phase motors, with



self contained capacitor and transfer switch. The transfer switch disconnects the starting capacitor as the motor reaches full speed.

1, 1½ and 2 h.p. motors have built-in manual reset thermostatic protection against excessive internal temperatures resulting from overloads, too frequent starting, stoppage of ventilation, excessive surrounding room temperature, stalled motor and running on low voltage.

Motors are available for 60 cycle, single-phase 220 volts service. They will operate successfully at normal frequency and rated load with voltage 10 per cent above or below the nameplate rating.

Kurly Kate
METAL SPONGES
Designed especially for cleaning all types of dairy equipment and utensils. Will not rust or splinter, cut the hands or injure metal or plated surfaces. Kurly Kate Metal Sponges are fast working, easy to use, and easy to keep clean. Made in STAINLESS STEEL, NICKEL, SILVER and BRONZE.
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ORDER FROM YOUR JOBBER OR WRITE DIRECT
Kurly Kate
stainless metal sponge
FOR EASIER INDUSTRIAL CLEANING
SOFT ON HANDS
SANITARY

GREEN SPRING DAIRY

(Continued from Page 32)

save money on cap costs Green Spring adopted a bottle with a 38 millimeter opening. Mr. Parks pointed out that this opportunity to use smaller opening with the consequent savings was an important factor in the firm's decision to change.

The type of washer is extremely important according to the Green Spring manager. The Baltimore concern uses a spray type washer which appears to handle square bottles in a satisfactory manner. Valve changes on the filler and capper heads were pieces of equipment that required alteration as a result of the change. "If we hadn't gone in for small openings," Mr. Park said, "hardly any change in equipment would have been necessary." Some minor changes in other pieces of plant equipment were needed such as the star wheels on the filler, but, for the most part, the machinery that handled round bottles also handled square.

Transitional Process

Trucks and crates presented one of the most extensive problems in adjustment. New crates were purchased to carry the square bottles. This is an expensive project, Mr. Parks declares, but if done gradually in the course of normal replacement, can be done economically. The cost of bottles and crates would have been prohibitive if done all at once. The Green Spring plan is simply to buy square bottles when purchasing the normal quota of replacements. In this fashion the transition is kept relatively painless. "It is a difficult thing to do operationally," Mr. Parks said, "but it saves money." The same principle was employed in crate replacement.

The smaller size crate required by the square bottle created the need of changing racks in the trucks. Angle irons had to be adjusted to the smaller size but the space factor again enabled economies to be effected. Smaller trucks could be used and the load carried by older trucks increased. As many as 90 cases including empties have been carried although the usual load is 64.

The Green Spring Dairy has during its history been more or less closely associated with the Crown Cork and Seal Company of Baltimore. It was quite natural, therefore, that the problems in capping which attended the change-over should be solved with the help of Crown engineers. The use of a preformed cap proved effective in reducing the breakage at the capping machine, the Dacro P-38 cap giving the most satisfactory results. However, the school lunch program in Baltimore, with large milk requirements, specified that caps must be of such a nature that children could remove them with their hands without having to resort to a cap remover. The cap that Green Spring had been using for several years necessitated changing of the heads on the fillers when school milk was being prepared. In order to get away from this operation Green Spring has been experimenting with a paper lined aluminum cap. So far this type cap has been used only experimentally but Mr. Parks is of the opinion that it may be the answer to his problem.

Large Saving In Caps

The question of the small opening as opposed to the large opening was a question to which the Green Spring people gave considerable attention. If the smaller opening was used a greater alteration in equipment would be required yet large savings could be made in the cost of caps. Furthermore, Mr. Parks pointed out, the breakage factor in the capping machine is reduced by the apparent increase in strength that occurs and the reduction in pressure required from the capping machine when the smaller opening is used. "We decided that if we were going to change we might as well go all the way." Mr. Parks said, "We had to buy new bottles in any case and by virtue of the smaller openings we could save around 25 per cent in cap costs." The end result was the small 38 millimeter opening with steel, preformed Dacro P-38 cap.

The most important disadvantage of square bottles that the Green Spring experience uncovered was a greater rate of breakage. The flat surface of the square bottle is more vulnerable than the curved surface of the round bottle.

The general impression gained from the Green Spring Dairy experience in going from round to square is one of careful planning and gradual evolution. Consumers reacted favorably to the new style package and certain economies in storage and capping were made. Greater breakage and equipment alterations were discordant elements in an otherwise happy picture. Doubtless there are other factors which will crop up either pro or con as experience builds up a resevoir of knowledge relating to the problem.

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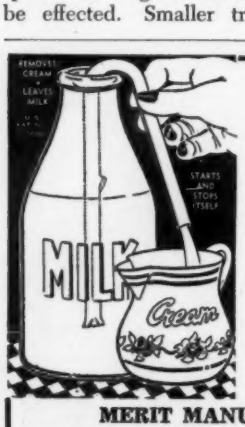
CHEESE EXCHANGE RULES

Amendment of the Articles of Incorporation of the Wisconsin Cheese Exchange, after more than a year of study, was completed on October 3, 1947, according to an announcement by R. W. Leffler, President.

Primary result of the change is the provision allowing for trading in cheese that originates in states other than Wisconsin. A large cheese production increase in neighboring states is responsible for the new rule.

The exchange has 45 members at the present time, the largest in some years, Approximately 10,000,000 pounds of cheese have already been bought and sold this year at a total price of more than $3,000,000.

Participating in the rules revision, which was carried out by a special committee from the exchange, were officials of the USDA, Wisconsin Department of Agriculture, and the Wisconsin College of Agriculture.



NEW—INTERESTING—USEFUL

Magic Cream Siphons, for home use remove cream from bottled milk, to use with coffee, cereals and desserts.

AN IDEAL GIFT

Leading dairy firms find Magic Cream Siphons a welcome sale-booster aid. Housewives appreciate them and homes using a cream siphon will consume more milk — the best balanced and least expensive of all natural foods. Used instead of water, milk improves cakes, pies, cereals, etc.

Free sample for round or square type bottles — two models are made.

$12.50 per gross $83.00 per 1000

Complete satisfaction guaranteed

MERIT MANUFACTURING COMPANY

3455 EAST 150TH STREET CLEVELAND 20, OHIO

POWDERED CONDENSED MILK

A DEPENDABLE NATIONAL OUTLET

Buyers Roller and Spray Whole and Nonfat Dry Milk Solids. Bulk Sweetened Skim, Condensed.

It will pay you to supply us regularly.

SIMMONS DAIRY PRODUCTS, LTD.

27 West Front Street Cincinnati 2, Ohio

Phone Main 0461

Special Long Distance Phone Cincinnati LD 163

DISI Officers Elected

Following is a list of officers and directors of the Dairy Industries Society International for the ensuing year who were elected during the organization's current gathering at Miami Beach.

The selections followed the recommendations of the Nominating Committee.

FRANCISCO DE LA FUENTE

President—Dr. Francisco de la Fuente, President, Compania Lechera de Cuba, Havana, Cuba.

Vice-President—W. Frank Jones, Vice-President, The Borden Co., Ltd., Toronto, Canada; former President, National Dairy Council of Canada.

Treasurer—Ralph L. Young, Sales Manager, The Sharples Corporation, Philadelphia, Pa.; Treasurer of Dairy Industries Supply Association.

Directors at Large—Frank S. Board, Consultant, Chicago, Ill.; lifetime spent in dairy industry in Britain, Australia, New Zealand, Canada and U. S. A.

Joseph O. Eastlack, Assistant Vice-President, The Borden Company, New York City.

George F. Kroha, Vice-President and Director, The Pfaudler Co., Rochester, N. Y.; Member of Board of Directors of Dairy Industries Supply Association.

J. Matthews, Manager, Dairy Engineering Department, Aluminum Plant & Vessel Co., London.

Irving C. Reynolds, President, Franklin Creamery Co., Sylvania, Ohio.

Robert Rosenbaum, David Michael & Co., Philadelphia, Pa.; President of Dairy Industries Supply Association.

J. Findlay Russell, Chairman, Director, Secretary, Russell's Farm Products, Ltd., Stirlingshire, Scotland.

George E. Wallis, President and General Manager, The Creamery Package Mfg. Co., Chicago, Ill.; member of Executive Committee of Board of Directors of Dairy Industries Supply Association.

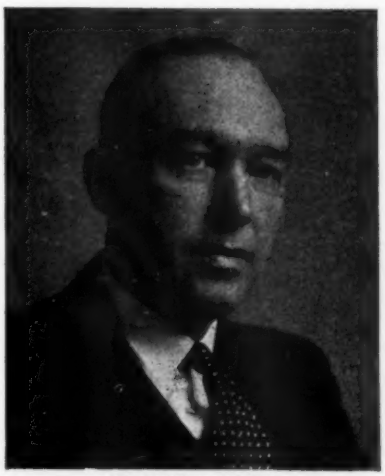
Carl A. Wood, Vice-president in Charge of Sales, Cherry-Burrell Corporation, Chicago, Ill.; member of Executive Committee of Board of Directors of Dairy Industries Supply Association.

Area Directors

J. H. Bryant, Australia, Chairman of Directors, Bryant Bros. Pty., Ltd., Dairy Engineers; Pauls Ice Cream & Milk, Ltd., Brisbane, Australia; Vice-president, N. S. W. Division, Australian Society of Dairy Technology.

K. L. Wallace, Canada, President, Walker-Wallace Limited, Toronto, Canada; member of Board of Directors of Dairy Industries Supply Association. (Currently Vice Chairman of DISI's Executive Committee of Board of Directors; on Speakers Bureau).

Peter K. MacKenzie, England, General Secretary, Dairy and Ice Cream Equipment Association and Dairy Engineers Association, Ltd. (Great Britain); Director of Education, London and Home Counties Division, Ice Cream Alliance; Chairman, Dairy Show Exhibitors' Committee; head of Peter K. MacKenzie and Company. (Currently on DISI's Board of Directors; on Membership Committee, Speakers Bureau, Committee on Exhibits and Ice Cream Manufacture and



W. FRANK JONES

Distribution Product Sub-Committee of Technical Advisory Committee).

Sr. Elias Corral de la Hoz, Mexico, Executive in Compania Leche Sanitaria Luis Pasteur, Mexico, D. F.

Nathan Haalman, Palestine, Executive, Thuva Dairy Coop., Tel Josef, Palestine. (Currently on DISI's Membership Committee).

Sr. Filipe E. Rodrigues, Portugal, Manager, Martins & Rebello, Dairy Processors, Lisboa, Portugal. (Currently on DISI's Membership Committee.)

Sr. Juan Minut, Uruguay, Executive, Bacteriologist, Conaprole, Montevideo, Uruguay. (Currently on DISI's Committee on Standard Terminology.)

Roland F. Smith, U. S. A., Vice president and General Manager, Waukesha Foundry Co., Waukesha, Wisconsin; Vice president of Dairy Industries Supply Association.

Gosta Winberg, Sweden, President-Director, Mjolkcentralen, Stockholm, Sweden. (Currently on DISI's Membership and Standard Terminology Committees.)

CONVENTION REPORTS

(Continued from Page 16)

throughout the world and continue this trend that has become all too prevalent in recent months of more pay for less productivity".

Connecticut Tops Judging

University of Connecticut's Dairy Products Judging Team took top honors in the Collegiate Students' International Contest in Judging Dairy Products sponsored by DISA and the American Dairy Science Association. Runner-up was Mississippi State College with University of Tennessee a close third. Top individual scoring for all products went to Ted Brunner, of Iowa State College. Evelyn H. Fish, University of Connecticut co-ed, one of two young ladies participating in the contest, captured second place in the contest for all products. The coveted Graduate Research Fellowship, awarded to the winning team in all products, goes to Connecticut. Members of the dairy department faculty will make the final decision concerning the member of the team to receive the award. Cups were awarded to each winning team in specific classes and gold, silver, and bronze medals were awarded to individual high scorers in each class.

Charter fleets were busy with dairymen turned anglers and the blue Miami waters are the poorer by several sailfish as a result of these efforts. The broad curving beach that is Miami's particular glory has been one of the major attractions of the convention week. Golf, sight-seeing tours, and fishing off the reefs have been additional parts of the extra curricular activities of the week.

Flood waters, the result of a long rainy season, forced cancellation of tours to dairy plants early in the week but by Friday the waters had abated sufficiently to allow an excursion into the country to take place. Despite a month of handicaps, Florida dairymen, with herds running as high as 1200 cattle on one farm, had a great deal to show convention visitors.

Equipment and Supply Picture

DISA President Robert Rosenbaum, in Miami Talk, Finds Industry Still Beset by Acute Problems — Analyzes the Current Situation

I WISH that it could be my pleasant task to inform you that the progress we had hoped for had already been achieved, and that equipment is readily available for the expansion that is greatly needed by our dairy industries. Actually the picture is still spotty. Let us take a look at it together.

Transportation

Trucks, generally, are more readily available than they have been for the past six years. This does not apply to all sizes and types. In the heavy duty field—which includes both trucks and tractors—are generally available within a delivery period of from 30 to 60 days. This delivery time will vary in proportion to the special requirements of the truck unit.

Trucks in the medium and light heavy field are not quite as readily available as the heavy duty units. The situation in this class of vehicle is improving and certain manufacturers can make delivery within a 60 day period.

The most difficult situation of all is in the lighter field—particularly with reference to panel bodies, and equipment satisfactory for retail delivery of milk and for special delivery of ice cream.

The period of delivery for this type of truck is beyond prediction at the present moment since the manufacturers are sold out for a long period ahead. It is anticipated that other manufacturers will soon be in production on a drop-well type, and this should gradually relieve the acute problem in that class and type.

Generally, delivery on motor trucks is much better than with passenger cars. In the heavy duty field, units can be obtained readily and this situation will also soon be true of the medium and light heavy field. How rapidly manufacturers can make the lighter types for delivery within normal periods will depend very much on the general trend of delivery of parts and supplies and availability of materials during the next six months to a year. It is still good policy to build a sound preventive maintenance program for the preservation of your present light delivery units.

Point-of-Sale Equipment

Here again, as with the light delivery units, one of the most important uncertainties is the continuing critical shortage of sheet steel. Some, in this field, have a feeling that if there is to be a larger allocation of steel products for the rehabilitation of our friends overseas, the present steel shortage may become even more acute in 1948.

Manufacturers of wark-in coolers and large reach-in coolers state that reasonably prompt shipment can now be made on both these items, which means from thirty to sixty days from the date of order. The situation is much less favorable on dairy cases and self-service type refrigerators. We are informed that most of the large makers are sold out for nine months to one year, but that it might be possible to get shipment in from six to nine months from a few of these houses, and particularly from some of the smaller ones whose backlogs are not so large.

The Soda Fountain Industry is in much the same position as that of the dairy case group. The larger manufacturers have backlogs of from six to nine months, with orders coming in at about the same rate as outgoing shipments. New orders are faced with delays in delivery of from six months to one year. A few of the smaller makers are said to be able to make almost inmediate delivery on some types of equipment such as bobtails.

Ice cream cabinets are pictured to be just about the same as soda fountains. A large volume of cabinets was produced in 1947, but not nearly enough to begin to fill the demand for replacements brought about by the wearing out of equipment during the war. Most of the large cabinet manufacturers feel that they have an obligation to their old customers and have been allocating their production mostly to their pre-war customers until such time as the backlog has been satisfied. This situation is likely to exist until the end of 1948.

Glass Containers

You will be happy to know that this is one of the bright spots in the dairy supply picture. Glass milk bottle production is back to normal, and there are no delivery difficulties in prospect.

Chemicals and Detergents

Our troubles in the supply picture, in this field, stem from the inadequate plant capacity in the manufacture of raw chemicals, from which dairy sanitation products derive much of their raw materials. The demand for these chemicals has increased by leaps and bounds since they are used in household cleansers, plastics, nylon and synthetic rubber to mention only a few. Likewise the demand for the finished compounded prod-

A Little Time Off For the IAICM Fishing Contest

MIAMI BEACH NEWS BUREAU.

Some of the many dairy industry men at the Miami Beach conventions who took a little time off to play Isaac Walton.

The group shown here exhibit their entries in the International Association of Ice Cream Manufacturers' fishing contest.

ucts for dairy sanitation has increased tremendously due to the increased consumption of all types of dairy products. At the present time, the supply situation is not favorable and shows no signs of basic improvement. It is necessary that inventories be kept at a point consistent with good plant practice if everyone is to have a sufficient supply of these vital necessities. Each one of you would do well to check every point where there might be waste in order to prevent unnecessary losses.

Equipment

Production of all types of equipment has been maintained at a very high level during the past year. All manufacturers had expanded facilities and have sought to catch up with the tremendous backlog of orders that had been accumulated all during the wartime period. It is now quite evident that this field has suffered from the same caprices that have been experienced in some other industries. Many customers placed orders with more than one manufacturer for similar pieces of equipment and completely forgot to cancel when they were assured of prompt delivery by the one on whose records their order reached the top. The apparent backlog of one year ago has undergone considerable shrinkage for still another reason.

Many dairy products companies had made plans for new plants to replace the overcrowded older plants in order to increase the efficiency of operations and to reduce processing costs. Still others projected plant and building improvements to replace antiquated and worn out items. Still others were proceeding upon the basis of expansion of existing facilities. For one reason or another, whether rising labor and material costs in other fields or a fear that our entire economic system was ready for some sort of collapse, many of these companies have postponed their progressive plans of yesterday and are twiddling their thumbs while awaiting what they fancy to be more favorable conditions.

In the interim, they are reluctant to cancel their orders and have frequently asked that these be given a "deferred" status. By this device, they hope to be able to maintain their places at the top of the list and to take their orders when they make up their minds that all dangers are behind them and it is safe to proceed with their original plans. If our equipment houses were to accord such courtesies, they would have to either erect or lease tremendous storage spaces, and it is quite obvious that they would be saddled with gigantic inventories and expenses that would force a general price increase to all their customers. This is not good business for the equipment industry and it is not a healthy state of mind for the diary industries. If deferments are asked and delivery requested for next March when our flush season of milk production is again upon us, such machines cannot be placed to one side, but fabrication will be commenced next Spring, and it is probable that delivery will not be made until long after the equipment is needed. We must all remember that many anxious purchasers are still awaiting their orders and that current production will, and must, go to those who abide by the orders they have placed in good faith.

Frequently, many orders are placed with special requirements such as particular automatic controls and special engineering features. When cancellation is requested on such items, it is like asking a custom tailor, who has already fitted you with a fabric, to place your suit back in stock for sale to someone else. It would be most unfortunate, at the very time that your equipment manufacturers are trying so hard to provide a maximum of service, to have such a chaotic state of affairs throw their production schedules completely out of balance.

Storage Tanks Problem

Storage tanks are one of the most heavily demanded items, and are generally unable to be delivered in less than from 10 to 12 months on new orders. The backlog may be somewhat watered on these and the manufacturers have no way of knowing how many duplications exist. The type of steel used by the dairy industry is in better supply than for some time past, and many component parts are being delivered with reasonable promptness. Motors are much easier than had been expected, and almost any type of motor can now be obtained within a maximum of six months.

Homogenizers and similar types of equipment are being delivered in almost normal periods ranging from 3 to 6 months, with conditions improving constantly.

Ice cream freezers are still in great demand and the larger companies have backlogs that will not permit prompt deliveries until the spring of 1949.

In the case of almost any piece of dairy equipment, there are times when immediate delivery is made by small dealers or jobbers because they have been disapopinted by one of the duplicate buyers who have refused to accept delivery. The piece is then sold to the first person who is fortunate enough to be on hand at the proper time and place. This is an accidental circumstance and should not be misunderstood by the industry at large.

Buy More U.S. Savings Bonds

EZE-ORANGE APPOINTMENTS

W. E. Bable and J. L. Piot Named to New Posts

EZE-ORANGE COMPANY, INC. has recently announced two new appointments.

W. Earl Bable J. L. Piot

W. Earle Bable, formerly associated with the Shaver Oil Co., has been appointed southern representative for the EZE-ORANGE concern and will represent them in the States of Georgia, Florida, and Alabama.

Joseph L. Piot has been appointed representative in the States of Colorado, Kansas, Montana, Utah, and Wyoming. Mr. Piot has been associated with Ray-Joseph Co. of Harvey, Ill. and the M. W. Kellogg Company at Abadan, Iran. He is making his headquarters at Denver, Colorado.

●

EDWARD HEINZ PASSES

Edward Heinz, for twenty years treasurer of the Peoria Milk Producers' Association, died at Proctor Hospital in Peoria on August 23, 1947, after a long illness.

Mr. Heinz, a life long resident of Peoria County, had been treasurer of the Peoria Milk Producers' Association since its organization in 1927. In 1933 he took on additional duties as Treasurer of the Peoria Producers' Dairy.

Mr. Heinz will be succeeded as treasurer of the Peoria Milk Producers' Association by E. E. Meyers of Washburn, Ill., an Association director.

●

NAME SALES MANAGER

Bloomfield, N. J.—C. M. Rowland has been named Sales Manager of the newly created Commercial Refrigeration Distributor Division of the General Electric Company's Air Conditioning Department, according to a recent announcement by G. R. Prout, Vice President and General Manager of the Air Conditioning Department. Mr. Rowland, who will make his headquarters at Bloomfield, N. J., was formerly Manager of Sales for the Department's Packaged Cooling Equipment Division which was discontinued concurrently with the establishment of the new organization.

UCONS Ist at Miami

Girl Contestants Make Impressive Showing in Contest — Brunner of Iowa All Products Champ.

(By Norman Myrick)

MIAMI BEACH, FLA.—Precedent was thoroughly homogenized here in the Collegiate Students' International Contest in Judging Dairy Products when Evelyn H. Fish, comely dairy lady from the University of Connecticut, captured second place in the All Products class over fifty-four masculine competitors. Miss Fish, the daughter of Mr. and Mrs. J. Hamilton Fish, a dairying couple in Southington, Conn., was one of two young ladies, who brought the feminine touch to the dairy products judging contest for the first time.

Ted Brunner, lanky Iowa red head, won the coveted first place in the All Products class but his team bowed into second place before the combined excellence of Connecticut's well balanced forces. The Nutmeggers took undisputed possession of first place in the All Products group among the 19 teams in the contest.

Individual honors in specific classes were well distributed with Dick Huckins, a dairyman and Michigan Stater by birth, moving into top place in milk judging. Huckins, who has managed to crowd the development of his own herd of Guernseys, a sales tour with Heatherwood Dairies, and a stint as refrigerator salesman into one life to date, was a pharmacist's mate in Uncle's navy during the war.

Cheese and Butter

Chuck Betterton, long and lean from Mississippi, garnered first place in cheese judging by squeezing out a victory over his team mate Lott Smith. Mississippi gained first award in this class as a team also.

Alan Tobie, University of Connecticut, won a gold medal in butter with Alice J. Bissell, Cornell co-ed, taking second money.

Iowa's Ted Brunner, All Products champion, walked off with the prize in ice cream as well. Oakly Hall of Maryland was second with Herluf M. Petersen of Iowa third.

The contest was sponsored by the Dairy Industry Supply Association and the American Dairy Science Association. Presentation of the cups, medals, and Graduate Research Fellowship to the winners in the contest was made by leading dairymen in the industry.

Chairman of the contest was G. J. Babcock of the U. S. Department of Agriculture. Professor G. M. Trout of Michigan State College was Chairman of the American Dairy Science Association Committee on Judging Dairy Products and R. J. Ramsey of Ramsey Laboratories in Cleveland, Ohio, was Chairman of DISA's committee on the judging contest.

Competing teams included: Colorado, Connecticut, Cornell, Florida, Illinois, Iowa, Michigan, Maryland, Massachusetts, Nebraska, Ohio, Pennsylvania, Purdue, South Dakota, Tennessee, Texas A. & M., Texas Tech, and Wisconsin.

The Summaries

ALL PRODUCTS

Individuals

1.	Ted Brunner, Iowa State College	107.15
2.	Evelyn H. Fish, University of Conn.	113.78
3.	Lott B. Smith, Mississippi State College	114.75
4.	Richard Huckins, Mich. State College	117.50

Teams

1.	University of Connecticut	11
2.	Mississippi State College	16
3.	University of Tennessee	18
4.	University of Maryland	23

MILK

Individuals

1.	Richard Huckins, Mich. State College	18.5
2.	Ray. W. J. Campbell, Un. of Mass.	25.5
3.	Cleo C. Taylor, University of Tenn.	26.75
4.	Andrew J. Magyar, University of Wis.	27.75

Teams

1.	University of Connecticut	97.83
2.	Michigan State College	98.00
3.	University of Maryland	99.16
4.	Mississippi State College	104.05

ICE CREAM

Individuals

1.	Ted Brunner, Iowa State College	29.2
2.	Oakley Hall, Jr., University of Maryland	31.5
3.	Herluf M. Petersen, Iowa State College	32.0
4.	Evelyn H. Fish, University of Conn.	33.0

Teams

1.	Iowa State College	97.1
2.	University of Connecticut	113.5
3.	Ohio State College	119.1
4.	University of Tennessee	119.8

BUTTER

Individuals

1.	Alan F. Tobie, University of Conn.	8.0
2.	Alice Jane Bissell, Cornell University	9.5
3.	Evelyn H. Fish, University of Conn.	11.0
4.	Robert A. Warner, Mich. State College	11.5

Teams

1.	University of Connecticut	35.0
2.	Michigan State College	42.0
3.	Cornell University	43.5
4.	Mississippi State College	47.0

CHEESE

Individuals

1.	Charles M. Betterton, Miss. State	24.0
2.	Lott B. Smith, Mississippi State	26.0
3.	Wm. B. Beshears, Jr., Texas Tech. Coll.	30.5
4.	Ted Brunner, Iowa State College	31.0
5.	Christopher Morgan, University of Neb.	31.5
6.	Allen S. Lehman, University of Md.	33.0
6.	Leslie O. Templeton, University of Mass.	33.0
8.	Oakley Hall, University of Md.	33.5
8.	Charles H. Reeves, University of Tenn.	33.5
10.	August F. Eckels, Jr., Univer. of Md.	34.0
10.	Keith Bahler, Ohio State University	34.0

Teams

1.	Mississippi State College	83.0
2.	University of Maryland	100.5
3.	University of Tennessee	109.5
4.	Texas Technological College	110.0
5.	Michigan State College	112.0
6.	Cornell University	114.0
7.	University of Connecticut	118.5
8.	Iowa State College	120.0
9.	Ohio State University	120.0
10.	University of Nebraska	122.5

MIAMI BEACH NEWS BUREAU.

Evelyn F. Fish (left), daughter of dairy farmers Mr. and Mrs. J. Hamilton Fish, East Street, Southington, Conn., was a member of the trio on the University of Connecticut team which defeated 18 other teams to win the $850 All-Products Fellowship and All-Products three-year Challenge Cup in the 26th Annual Collegiate Students' International Contest in Judging Dairy Products, sponsored by the Dairy Industries Supplies Association and held October 27 in the Floridian Hotel, Miami Beach.

The Connecticut team also won the Milk and Butter Cups, while Evelyn herself won the All-Products silver medal and the bronze medal for butter judging.

Alice Jane Bissell (right), of Norwich, N. Y., member of Cornell University's team and first girl ever to be entered by Cornell in the teams which also decided the merits of milk, ice cream and cheese.

Ten 65-pound tubs of butter were judged in this traditional judging event. Miss Bissell won the silver medal for butter judging.

COMPLETE PRODUCTION TEST

Brattleboro, Vt. — Among registered Holstein-Friesian cows in New York whose recently completed production records were recorded by the Advanced Registry Department of The Holstein-Friesian Association of America are the following.

Owned by Daniel I. Mayne, Rochester—Knollwood Rag Apple Dora, 730 pounds of butterfat, 17,106 pounds of milk, 365 days, 3 milkings daily, 4 years 6 months of age.

Owned by Thomas N. Nagle, Webster—Bendview Finderne Pabst, 662 pounds of butterfat, 18,961 pounds of milk, 365 days, 3 milkings daily, 8 years 2 months of age and Baralee Hartog Expectation, 614 pounds of butterfat, 16,259 pounds of milk, 365 days, 3 milkings daily, 4 years 7 months of age.

Owned by Barton Miller, Billings—Perstein Model Man-O-War, 567 pounds of butterfat, 17,342 pounds of milk, 349 days, 3 milkings daily, 8 years 6 months of age; Jonabell Deanna, 515 pounds of butterfat, 15,244 pounds of milk, 340 days, 3 milkings daily, 7 years 3 months of age; and Greenwood Craftsman Jessibuel, 502 pounds of butterfat, 15,397 pounds of milk, 295 days, 3 milkings daily, 8 years 4 months of age.

Owned by Gordon Voorhis, Red Hook —Bethune Hazel Korndyke, 547 pounds of butterfat, 16,034 pounds of milk, 365 days, 2 milkings daily, 5 years 2 months of age White Wood Korndyke Pebbe Pet, 469 pounds of butterfat, 14,272 pounds of milk, 360 days, 2 milkings daily, 5 years 2 months of age; and Colanthus Sachem Posch, 400 pounds of butterfat, 12,027 pounds of milk, 321 days, 2 milkings daily, 3 years 3 months of age.

Nadem Holds Fall Meeting

The annual Fall Meeting of the National Association of Dairy Equipment Manufacturers was held recently at Nippersink Lodge, Genoa City, Wis. Featured speakers included Harold F. North, Industrial Relations Manager of Swift & Company, who spoke on "The Future of Industrial Relations in the United States" John W. Ladd, president of Cherry-Burrell Corporation, who discussed "The Dairy Equipment Business, Past, Present and Future"; and Owen Fairweather, nationally known attorney, who addressed the group on "The Effect of the Taft-Hartley Law Upon Day-to-Day Relations with the Union Steward".

A special joint session of the Technical Committees of NADEM and DISA was presided over by H. S. Fielder, of Cherry-Burrell Corp., who is Chairman of both committees. Present at the joint meeting were: E. C. Damrow, Damrow Bros. Co.; H. B. Wilson, Cherry-Burrell Corp.; W. W. Cavanaugh, York Corporation; Howard Faust, R. G. Wright Co.; Roberts Everett, executive vice president of DISA W. H. Klee, Pfaudler Co.; Roland Smith, Waukesha Foundry Co.; Norman Peters, Damrow Bros. Co.; G. W. Putnam, The Creamery Package Mfg. Company; and F. G. Cornell, Jr., Jensen Machinery Co.

An informal Round Table discussion of current problems facing the industry was conducted by Earl Slayton, Cherry-Burrell Corp., chairman of the NADEM Executive Committee and Harry A. Sieck, Executive Secretary of the organization.

Technical Committees Convene in Special Session During National Association of Dairy Equipment Manufacturers Meeting in Wisconsin.

W. H. Haskell Joins Klenzade

Klenzade Products, Inc., Beloit, Wisconsin, announces that Dr. William H. Haskell, for many years senior sanitarian with the United States Public Health Service, has now become associated with them.

Dr. Haskell has assumed his new duties with the Klenzade Company as director of programs and in charge of educational and quality work. He will be aided in these fields by other members of the Klenzade staff in various areas of the country.

For the past twenty years Dr. Haskell has been employed by the United States Public Health Service in a variety of capacities as a senior sanitarian and milk specialist. He has been engaged in milk and food sanitation activities in every section of the United States, working with the various state and local health departments as well as various industrial groups, on all phases of this important field.

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Owens-Illinois Appointments

Several promotions in sales assignments within the Glass Container Division of Owens-Illinois Glass Company are being announced by Smith L. Rairdon, Vice-President and General Sales Manager.

Eugene Hildreth, Sales Manager to the Food Industries, has been appointed Sales Promotion Manager succeeding Kenneth C. White. Mr. White's new sales responsibilities which will take him to the West Coast will be announced in the near future.

Sidney Davis, Chicago Branch Manager, has been selected to succeed Mr. Hildreth as Sales Manager to the Food Industries.

E. F. Schafer, Philadelphia Branch Manager, has been named to the newly created post of General Branch Manager with headquarters in Toledo. He will handle many of the sales administrative problems formerly assigned to the late Lucian Taylor. Mr. Schafer is being succeeded in Philadelphia by Wesley Adams, Philadelphia Branch Salesman.

Decision to combine the Closure and Plastics Sales Divisions has resulted in the appointment of Joseph Parks as Manager of these Divisions and Leonard Phillipps as Eastern District Manager. These appointments were made by R. E. Delaplane, Sales Manager to the Beverage Industries.

USE OUR MICRO CRYSTALLINE WAX TO SOLVE YOUR MILK PACKAGING PROBLEMS

It has been proven that MICRO CRYSTALLINE WAX, added to your other waxes - - -

- **IMPROVES ADHESION**
- **PREVENTS FLAKING**
- **HELPS TO STOP LEAKS**
- **EXTENDS OTHER WAXES**

Write today for Samples and Literature

BOLER PETROLEUM COMPANY

Widener Building **Philadelphia 7, Pa.**

WANTS and FOR SALES

RATES: "Position Wanted," 50c. Limit of 50 words; 2c for each additional word. All other advertisements, 5c a word ($1.00 minimum). Keyed ads, 15c extra to cover return postage. The name and address should be included in counting the words. All payments strictly in advance.

FOR SALE—EQUIPMENT

FOR SALE—2,000 gallon stainless steel insulated Milk Tank on late truck chassis, also 20 tanks Trailerized and on trailers—2,500 gal. to 4,250 gal. and storage tanks. Meyer Simon, 150 West 87th St., New York City, N. Y. 11-M

ONE HEIL model "E" 6 wide bottle washer; One Cherry Burrell Nuline No. 70 bottle filler; about one thousand quart, pint and half pint milk cases for round bottles and large quantity of bottles for same; one Miller butter cutter and one Cherry wrapper; one Creamery Package 60 quart continuous ice cream freezer. All of the above equipment in daily use at the present time, but will be available about December 1. Due to extensive plant changes we are offering this equipment for sale at bargain prices. Call or write Missouri Valley Creamery, Washington, Mo. 11-M

FOR SALE—1 Braun straightaway can washer with cover replacer, 14 cans per minute; 1 glass-lined pasteurizer with side agitator, 300 gallons capacity; 3 Pfaudler low vats, glass-lined with agitators, 200 gallons capacity; 2-500 gallon polished stainless steel single shell tanks; 1 Peterson Kelly hot water heater with controls, 250 gallons per minute; 1 Clayton high pressure boiler, 100 H.P., 125 lb. pressure, complete with automatic water feed, oil burner and controls—this is a conical unit requiring a space 4 ft. wide, 7 ft. high and 7 ft. long; C.P. shell and two brine cooler float and surge drums with valves, complete, 10 ton capacity — 24 tubes, 2 in. diameter, 8 ft. long, cooler is 18 in. in diameter, has 7 passes; shell and tube condensor — 15 ft. 6 in. long, contains 30 tubes, 2 in. diameter, 15 ft. long, 4 passes; 3 — 3000 gallon Pfaudler horizontal glass-lined storage tanks; two 6x6 York 2 cycle ammonia compressors with motors; 1 U.S. batch freezer, brine, 80 qt. capacity, 10 H.P. motor. 1 No. 41 DeLaval steam driven separator; 1 No. 70 DeLaval separator with motor; 1 Union viscolizer, 450 to 500 gallons per hour, complete with motor; 3 cheese vats—8500 lbs.; 200 Wilson cheese hoops; 2000 quart cases for square bottles — brand new — good buy; 2000 qt. cases for round bottles; 1 Cherry-Burrell single spray pasteurizer with motor; 1 — 20 can pasteurizer — stainless steel; 2 — 12 ft. sinks with racks. Edelman Corporation, 321 Broadway, New York 7, N. Y. 11-M

FOR SALE—EQUIPMENT

FOR SALE—11 Insulated, glass lined 3,000 Gal. capacity horizontal milk tanks, removed from Pfaudler cars, in good condition, inside dimensions approximately 78" diameter by 14' long. Located Chicago district with available auxiliary electrical and agitator equipment. All available for inspection. Priced "as is". Communicate with H. L. Roth, Fruit Growers Express Company, 1101 Vermont Ave., N.W., Washington, D. C. 11-M

FOR SALE—American Marsh homogenizer, 300 gal., 10 h.p., 3 phase motor. Excellent condition—one year old, $1450.00; R. G. Wright pasteurizer, 150 gal. stainless steel; 80 gross handy quart milk bottles, standard cap seat. Rodewald Farms Dairy, Roselle, Illinois. 11-M

FOR SALE—8 ft. surface cooler, 6, 8, and 12 tube sections complete with distributor pipe and trough, sanitary pipe wash tank; refrigerator doors, 4x4 self contained ammonia compressor and sweet water cooler, 250 gals. per hour; Manton Gaulin homogenizer, bronze head. Write Royale Dairy, Chambersburg, Pa., Phone 759. 11-M

FOR SALE—4 Pfaudler Lo-Vats, glass lined, with agitators, 200 gal. each; One glass lined pasteurizer with side agitator, 300 gal. capacity; two 500 gal. polished stainless steel single shell tanks. Eastern plant. Box 194, care this publication. 11-M

FOR SALE—Three (3) CP Tag Air operated recorder controllers with chart V-M-220-30-127 for fluid milk. For 200 gal. CP Multi-Process tanks having 3A2 sidewall connections 5-11/16" sleeve connections. These recorder controllers will bring your milk to 143 degrees and hold it. Brand new, never been used. Price $275.00 each. Dean D. Strickler & Sons, Huntingdon, Pa. 11-M-3

FOR SALE—1937 Divco Delivery truck. Stand up and drive model. Price $375.00. f.o.b. Livingston Manor, N. Y. Alpine Spring Dairy, Livingston Manor, N. Y. 11-M

EQUIPMENT FOR SALE—8 Stainless Steel Vats; one 300 gal. Glass-lined Pasteurizer; one 500 gal. Coil Pasteurizer; one 500 gal. Union Homogenizer, and other equipment priced for quick sale. Located in the East. Box 192, care this publication. 11-M-2

FOR SALE—EQUIPMENT

FOR SALE—Used 150 h.p. Ames Horizontal Boiler with stack and stoker, now operating and inspected for 125 pounds steam pressure, complete for $1,750.00; 2 used Tin Copper Surface Coolers complete with troughs—one 8' and one 6' long, both for $100.00; one Simplex Barrel Churn, 3 cans cream capacity, $10.00. Sauquoit Valley Dairy Co., Inc., 491 French Road, Utica 4, N. Y. 11-M

FOR SALE—Good used milk plant equipment. Wide selection. Otto Biefeld Co., Watertown, Wis. 11-M

FOR SALE—One used C.B. Deluge round milk bottle washer (2 compartment) $150.00. S. Smith, 254 North Ave., Hilton, N. Y. 11-M

FOR SALE—LARGEST SELECTION of Pasteurizers, Bottle Washers, Bottle Fillers, Coolers, Can Washers, Homogenizers or Viscolizers, Pumps, Surge Tanks, Storage Tanks, Heaters, Separators, Weigh Cans, Filters, Vacuum Pans, Ice Cream Freezers, etc. Write or wire your particular requirements and plan to visit our new warehouse and shop. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17, N. Y. 11-M

FOR SALE—One 22' Insulated Milk Trailer—600 case capacity, in perfect condition. Fair Lawn Dairy Farms, 5-01 River Road, Fair Lawn, N. J. 11-M-2

FOR SALE—One Cherry-Burrell can washer complete with pump and motor drier, 3-4 per minute, hand operated, A1 condition; One Cherry-Burrell brine cooler, 36 tube, 3½ x 6 ft., complete with stand, used one season; One Creamery Package Pre-heater, 8 tube, 1½-in., 42 in. long, A1 condition. Arlington Dairy Co., 1441 No. Wood St., Chicago 22, Ill. 11-M

FOR SALE—One 3 h.p. Frick Compressor Ammonia Ice Machine with 3 h.p. Single phase motor; one walk-in cooler box—6' x 8'; two Thermostats for refrigerators. Box 193, care this publication. 11-M

FOR SALE—MISCELLANEOUS

FOR SALE—Chocolate Milk made with Bradway Non-Setting Chocolate Syrup and Powder is superior. Place your trial order now. BRADWAY CHOCOLATE COMPANY, New Castle, Ind. 11-M-t.f.

USED MILK BOTTLE CRATES—Can deface old name and rebrand. Write or phone for present day inventory. Ohio Creamery Supply Co., 701 Woodland Ave., Cleveland, Ohio. 11-M-t.f.

FOR SALE—25 Gross (never used) round quart bottles with No. 2 cap seat. Also used quart, pint and one-half pint bottles and wire cases. F.O.B. Iron Mountain. Pine Mountain Dairy, Iron Mountain, Mich. 11-M

Better **DRY MILK**

AT LOWER COST

DRY MILK MACHINES

Built in Five Sizes

The patented, glass-smooth, "20-year cylinders" give years and years of maximum production of a superior dry milk at the lowest possible cost.

Many other exclusive features insure long life with low steam and power costs.

Complete details upon request.

OVERTON MACHINE COMPANY

DOWAGIAC MICHIGAN

Sales Service for Manufacturers of

MILK PRODUCTS

Evaporated Milk—Powdered Skim Milk — Powdered Buttermilk — Condensed Skim and Whole Milk — Powdered Whole Milk.

C. W. BURCKHALTER, Inc.

156 Franklin St. New York, N. Y.

WAlker 5-0727

FOR SALE — MISCELLANEOUS

NEW JERSEY, Newark and Pennsylvania approved milk in tanks or cans, on daily or contract basis. Major Smith, 3229 Bergenline Ave., Union City, N. J. 11-M

FOR SALE—Approximately 700 quart cases, 400 pint cases, 700 half pint cases for round bottles. Price $.75 each—f.o.b. Pittsburgh. Pittsburgh Milk Co., 860 Saw Mill Run Blvd., Pittsburgh, Pa. 11-M

WANTED

DAIRY PLANT OWNERS SEEKING
Progressive Steam Fitting Concern
Plants Modernized
Steam and Condensation Surveys
for Fuel Conservation
Boilers and Machinery Installed
Heating and Insulation
Eastern Territory Covered
S. PINN & SON
1271 Hoe Ave. New York 59, N. Y.
11-M-t.f.

WANTED—SKIM MILK, year round; New York State plant or nearby. Plant must have facilities for cheese making. Box 190, care this publication. 11-M-t.f.

WE ARE INTERESTED in purchasing a quantity of Quart, Pint and Half-Pint Cases. Send full particulars stating quantity, condition and price. Box 191, care this publication. 11-M-t.f.

WANTED TO BUY—A 50 h.p. boiler with oil burner. Sauquoit Valley Dairy Co., Inc., 491 French Road, Utica 4, New York. 11-M

DAIRY WANTED—With routes, in New Jersey. Willing to buy outright or partnership. Box 195, care this publication. 11-M

I WANT TO BUY a good milk bottling plant with daily sales of about one thousand gallons. Prefer Western United States. Write me in full detail what you have and price asked. George A. Maier, 1915 Aberdeen St., Butte, Montana. 11-M-2

HELP WANTED

A LEADING Eastern dairy plant equipment manufacturer is seeking an experienced sales engineer with better-than-average ability. Position leads directly to executive post with promising future. Write to Box 197, care of this publication. 11-M

POSITION WANTED

POSITION WANTED—As creamery foreman, 20 years experience in both city and country plants. Understand pasteurizing milk and cream. Can make commercial buttermilk and cheddar cheese. New York State preferred. Box 198, care this publication. 11-M

BUSINESS OPPORTUNITIES

FOR SALE—A well established milk business handling 1,000 quarts daily. Located in College town; wonderful opportunity. Box 196, care this publication. 11-M-2

H. C. HORNEMANN RETIRES

Indianapolis, Ind. (E.B.)—H. C. Hornemann, now retired from active business and living in Florida, founder and former president of the Sugar Creek Creamery of Danville, Ill., and chairman of the board of directors of the first National Bank of Danville, has sold his "Kanfluer Farm" of 392 acres, two miles south of Perrysville, Ind., to J. C. Gilbert, Arcola, Ill. The farm was devoted to production of choice Guernsey dairy cattle.

JOINS DRY MILK INSTITUTE

Henry T. Meigs, long associated with bakeries in the West, has joined the Bakery Division, American Dry Milk Institute, Inc., Chicago, according to announcement by Victor E. Marx, in charge.

Born and raised in Pueblo, Colorado, he early became associated with the late C. N. Power, nationally prominent bakery operator of that city. After service in a World War I bakery company he returned to bakery work in Pueblo until the plant was merged into a national bakery organization. Graduating from the American Institute of Baking in 1924 and at the time becoming a founder-member of the American Society of Bakery Engineers, Meigs was appointed Superintendent of Deppe Baking Company, Chicago. Then followed a period of a few years in the allied field in the yeast food and flour industries.

In 1929 Meigs joined Safeway Stores, Bakery Division, now Fairfax Bread Company at Sacramento, California, as bakery manager. Remaining with the company for 12 years in various capacities, ending as Manager of the San Francisco plant when it was closed and merged with the Oakland, California, operations, he became General Manager of Fisher Baking Company, Salt Lake City, for a period of over two years. For a short time recently he operated the Sweet Goods plant of Langendorf United Bakeries, San Francisco, California.

Meigs makes his home in LaFayette, California, just outside of Oakland and will represent the American Dry Milk Institute, Inc., among bakers in the Western Section of the country.

●

BOTTLE EXCHANGE GROUP

The annual meeting of the National Association of Milk Bottle Exchanges is scheduled to be held in Chicago on December 15, 16 and 17, 1947, in conjunction with the Illinois Dairy Products Association state convention. The Bottle Exchange group will have a program at the Morrison Hotel on Monday, December 15; on the 16th, members will inspect bottle manufacturing plants in the area, and on Wednesday, will attend the Illinois Association's meetings.

Sam Cornelius, manager of the Bottle Exchange at Cleveland, is president of the National Association of Milk Bottle Exchanges. D. Scott Hager of Toledo, who recently resigned as secretary-treasurer of the Association, has been replaced by T. H. Broughton, manager of the Bottle Exchange at Detroit. Scott Hager is no longer connected with the Bottle Exchange at Toledo.

There will also be a meeting of members of this Association at Miami Beach at the time of the Dairy Industries Conventions. The Bottle Exchange group has scheduled a meeting at 2:00 P.M. on Saturday, November 1.

●

APPOINTED TO COMMITTEE

Howard W. Selby, General Manager of United Farmers, a New England organization, has been appointed to the Foreign Trade Advisory Committee by the Acting Secretary of Agriculture.

New Accountant and Dairy Consultant Firm

Harry E. Kapleau

M. J. Kluger

Kapleau, Kluger & Co. is a new firm, which was formed recently to engage in the practice of accounting and consultation for the dairy products industry. The partners, Harry E. Kapleau and M. J. Kluger, were both formerly associated with the New York Federal Milk Market Administrator, 1938-1942, and, for the past five years, with the Philadelphia Federal Milk Market Administrator as chief auditor and chief accountant respectively. Prior to their association with the New York Milk Market Administrator, Kapleau and Kluger were engaged in the general public and private practice of accounting.

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ILLINOIS BUYING HABITS

Springfield, Ill.—49.1 per cent of urban Illinois families buy canned milk, according to figures in the Second Annual Consumer Analysis conducted in 41 Illinois cities in June of this year. The 1946 figure was 48.5 per cent for a comparable group of cities. Oleomargarine sales showed an increase to 58.7 per cent of families buying compared with 57.1 per cent reported last year.

These figures were released recently by Paul L. Gorham, General Manager of Illinois Daily Newspaper Markets, Springfield, Illinois, aud are taken from Volume 4 of the 15 volume survey which is ready for release to the trade.

The question asked of the housewives, in gathering this information, was "Do you buy canned milk?" and "What brand?"

Brand identification was very high, as only six-tenths of one per cent of housewives gave a "Don't Know" answer. Dealer distribution figures remained fairly steady with last year in most cities.

●

OFFICERS ELECTED

Officers for the coming year were elected by the American Dairy Association of North Dakota at their annual banquet held recently in connection with the first North Dakota Dairy Show.

The following slate was elected:

President—Harold Kabler, Manager Farmers Co-op. Creamery, Edgeley.

Vice-president—B. F. Haines, Linton Creamery, Linton.

Secretary—C. Jensen, Chairman Dept. of Dairy Husbandry, N.D.A.C., Fargo.

Treasurer—O. A. Amundson, Bridgeman-Russell Co., Jamestown.

The retiring officers are:

President — Vern Almquist, Fargo Branch Armour & Co., Fargo.

Vice-president—E. L. Anderson, former Manager Traill Co. Co-op. Creamery, Hillsboro.

Treasurer—Paul Person, Knerr Dairy Co., Fargo.

●

THATCHER GLASS DIVIDEND

At the regular monthly meeting of the Board of Directors of Thatcher Glass Manufacturing Company, Inc., held Friday, September 19, at Elmira, New York, the regular quarterly dividend of $.60 per share was declared on the Convertible Preference Stock and a dividend of $.15 per share was declared on the Common Stock, both dividends payable November 15, 1947, to stockholders of record October 31, 1947.

This is the one hundred twenty-sixth consecutive quarterly dividend on the Convertible Preference Stock.

OF EVENTS TO COME

Michigan Dairy Manufacturers' Conference—Michigan State College, East Lansing, November 5-7.

National Cooperative Milk Producers' Federation—Annual convention, Jefferson Hotel, St. Louis, Mo., November 5-8.

New England Dairy Mixers, Inc.—Annual meeting November 6, Hotel Lenox, Boston, Mass. E. A. Blakelock, executive secretary, 57 Foster Rd., Belmont 78, Mass.

Ohio Animal Nutrition Conference—Ohio State University, Columbus, Ohio, November 6 and 7.

Iowa Milk & Ice Cream Association—Annual convention, Des Moines, Iowa, November 12-14.

National Creamery Buttermakers' Association—Annual convention, Hotel Lowry, St. Paul, Minn., November 12-13.

New York State Milk Distributors—Annual convention, Arlington Hotel, Binghamton, November 12-13.

American Dairy Association—Fall meeting of executive and advisory committees, Nicollet Hotel, Minneapolis, Minn., November 17 and 18. Owen M. Richards, 20 N. Wacker Drive Bldg., Chicago 6, Ill.

Indiana Dairy Products Association—Annual convention, French Lick Springs Hotel, French Lick, Indiana, November 17-19.

American Butter Institute—Annual convention November 19 and 20, at the Congress Hotel, Chicago, Ill. Russell Fifer, executive secretary, 110 N. Franklin St., Chicago 6, Ill.

Washington State Milk Dealers Association, Washington State Ice Cream Manufacturers Association and Washington State Creamery Operators—Annual Conclave at Vancouver, B. C., November 19-21, inclusive.

Ontario Milk Distributor's Association—Annual Convention November 29 and 30, General Brock Hotel, Niagara Falls, Ontario, Canada.

West Virginia Dairy Products Association—Annual convention, Daniel Boone Hotel, Charleston, W. Va., December 8-9, 1947. J. J. Slavina, Morgantown, W. Va., Secretary.

Associated Illinois Milk Sanitarians—Annual fall conference, Hotel Morrison, Chicago, Ill., December 15, 1947. P. Edward Riley, 1800 W. Fillmore St., Chicago, Ill., Secretary-Treasurer.

Illinois Dairy Products Association—Annual convention, Morrison Hotel, Chicago, Ill., December 15-17, 1947. M. G. Van Buskirk, 309 W. Jackson Blvd., Chicago, Secretary.

Dairy Short Courses—University of Georgia Dairy Department, Athens, Ga., November 18-19 and January 15-16.

North Carolina Dairy Products Association—Annual meeting, Hotel Sir Walter, Raleigh, N. C., January 15 and 16, 1948. Executive vice-president, L. L. Ray, Insurance Bldg., Raleigh, N. C.

Kansas Ice Cream and Milk Institute, Inc.—Annual convention, January 19, 1948. Executive Secretary, Dale M. Bryant, 1004 Brown Bldg., Wichita 2, Kan.

Georgia Dairy Association—Annual convention, Sheraton Bon Air Hotel, Augusta, Ga., January 23 and 24. Secretary, James E. Jackson, 414 Hurt Bldg., Atlanta, Ga.

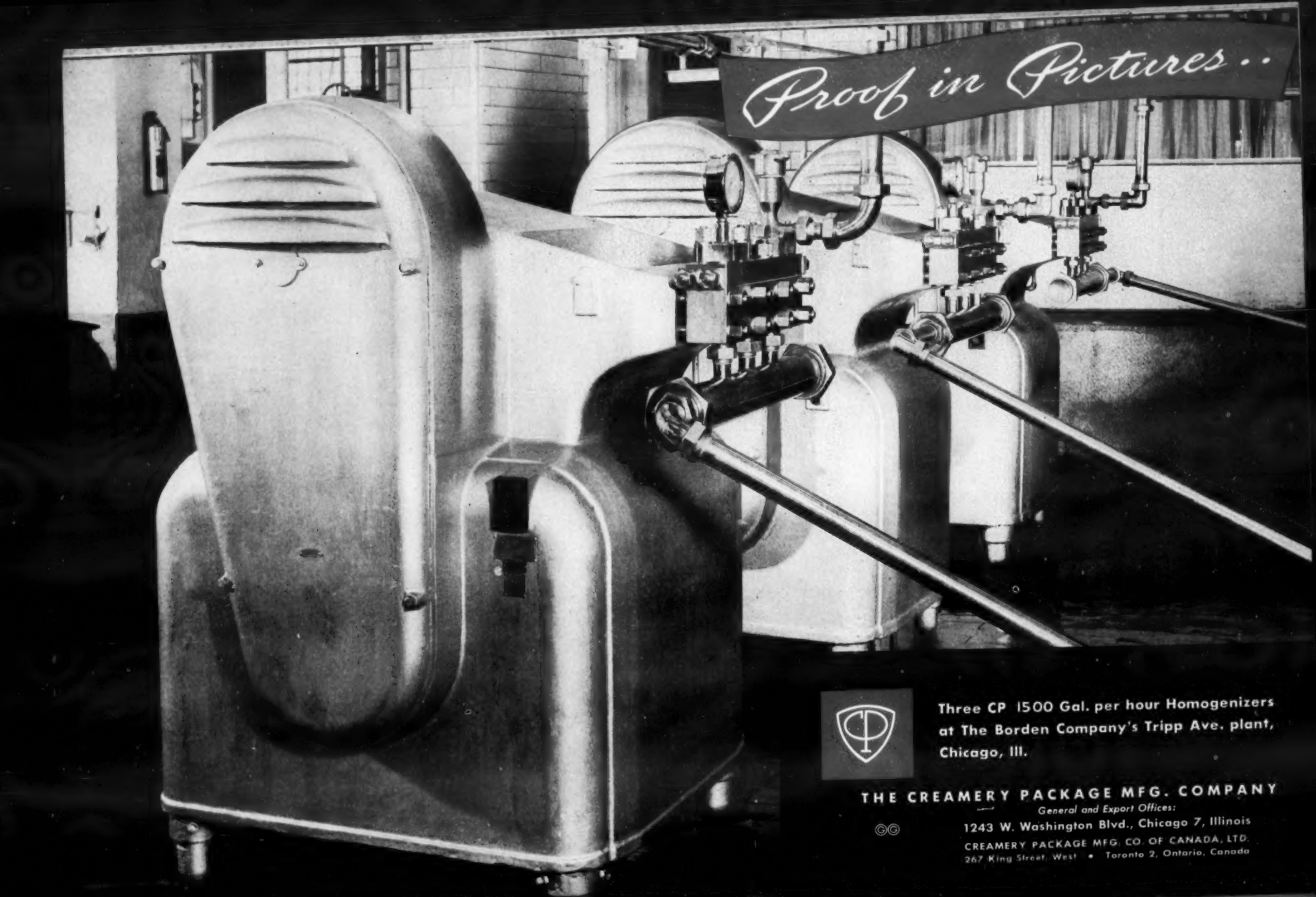
Ohio Dairy Products Association—Annual convention dates have been changed to January 26-28, 1948. Will be held at the Deshler-Wallick Hotel, Columbus. R. A. Larson, associate secretary, 5 E. Long St., Columbus 15, Ohio.

Mississippi Dairy Products Association—Annual convention, Buena Vista Hotel, Biloxi, Miss., January 29 and 30, 1948. Secretary, Prof. F. H. Herzer, Mississippi State College, State College, Miss.

●

OHIO DAIRY MEETING

More than 60 representatives from six states gathered in Cincinnati in October to attend a long range dairy production program sponsored by the Dairy Industry Committee in cooperation with the USDA Dairy Division and Extension Service. Delegates from college, regulatory agencies, producer groups, and dealers were present.



Three CP 1500 Gal. per hour Homogenizers at The Borden Company's Tripp Ave. plant, Chicago, Ill.

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The cooling operation is simplicity itself with direct ammonia cooling. There are no moving parts in the system, except the ammonia compressor. The product flows through Cooler A. Ammonia Controls B automatically supply ammonia liquid to cooler, according to refrigeration requirements. Compressor C provides refrigerating effect. With direct ammonia cooling no intermediate heat transfer system is needed. Refrigeration losses are held to a minimum. Product is cooled uniformly to low temperatures. Equipment operates with lowest possible power cost. *Cooler and compressor—that is the equipment line-up with direct ammonia cooling.*

Mojonnier Coolers have proved the ideal ans on hundreds upon hundreds of dairy cooling pr lems because ammonia is used directly in the co

Direct Ammonia Cooling Means:

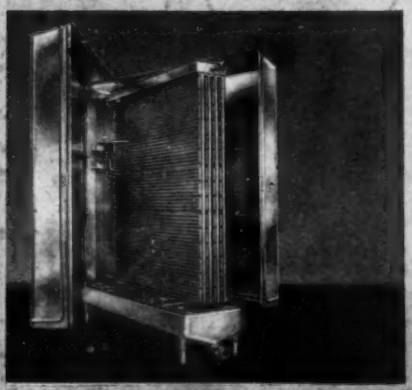
- No equipment besides the Mojonnier Cooler Compressor is needed to cool the product.
- Elimination of all intermediate heat trans systems.
- Lower product temperatures because ammo refrigeration is used at temperatures from 25° 30° F. (below freezing point of product coole
- Complete flexibility as to temperature selec of refrigerant.
- Lowest power cost for cooling milk (raw, ref erated or pasteurized) ice cream mix, cream, s or evaporated.
- Lower product temperatures and lowest pos power cost with less equipment to operate.

Consult with the experienced Mojonnier Engine now about your cooling operation. Send Bulletin 153.

Mojonnier Bros. Co. • 4601 W. Ohio St. • Chicago 44,

Mojonnier Compact, Stainless Steel COOLERS

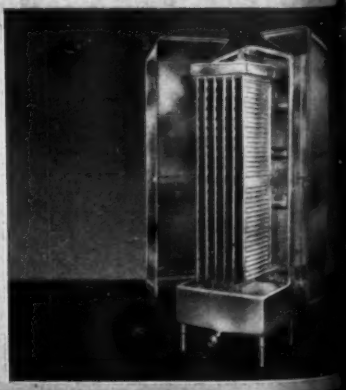
ARE AVAILABLE IN TWO TYPES COVERING EVERY DAIRY PLANT REQUIREMENT



Mojonnier Senior Compact Cooler, capacities from 3000 lbs. to 60,000 lbs. per hour. Model illustrated has capacity of 1000 gallons product per hour from 165° to 34° F.

Mojonnier Junior Compact Cooler, 300 lbs. to 5000 lbs. capacity. This cooler meets small and medium capacity requirements. Capacity can be increased by adding cooling sections. Cooler illustrated is Model 8-6-40, capacity 1800 lbs. product per hour. Upper part on water, lower part on ammonia. This is an entirely new post-war design.

Specifications applicable to either of above cooler types: coolers of all stainless steel construction, including cooling plates, distributing trough, lower collecting trough, rear housing and headers. Plates swivel open for cleaning. Ammonia controls all A.S.M.E. construction.



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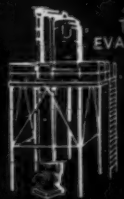
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